AIR CONDITIONING HEATING & REFRIGERATION NEWS
The Newspaper of the Industry
RESIDENTIAL — COMMERCIAL — INDUSTRIAL
August 10, 1959
Issued every Monday at 450 West Fort St., Detroit 26, Michigan
Established 1926
Member, Associated Business Publications ABP ABC Member, Audit Bureau of Circulations
Vol. 87, No. 15, Serial No. 1,585
Trade Mark Registered U.S. Patent Office. Copyright 1959, by Business News Publishing Co.
Subscription Price, $6 Per Year (U. S. and Canada). Foreign: $10.00 Per Year.
Reentered as second class matter October 3, 1936, at the post office at Detroit, Mich., under the Act of March 3, 1879.

Inside Dope

By GEORGE F. TAUBENECK

Learn to live and laugh — thus delay your epitaph

Stories of the Week
Thoughts for the Week
Medicinal Beer
Ah Research! It's Wonderful
Protect Yourself!
Ah Brevity!
Out of Our Mailbag

Stories of the Week

Mortly Meek was one of those fellows who handed over his paycheck to his wife every week. She doled out cigarettes and busfare money to him; no more.

"Martha!" he raced into the house one evening. "I've won $65,000 in the Irish Sweepstakes!"

"Is that so?" she eyed him suspiciously. "Where did you get the money for the Sweepstakes ticket?"

"I'm sure I've met you somewhere," man in a hotel lobby proffered his right paw.

"No doubt, no doubt," accepted Sam. "I've been there."

Thoughts for the Week

Nowadays about the only person who knows what he is doing is loafing.—REX MOBLEY.

We see fewer wallflowers at parties these days—and a lot more of the potted variety.—D. O. FLYNN.

The most irritating character at the reunion of the class of 1929 is the man who has both money and hair. — BILL VAUGHAN.

Medicinal Beer

Medical applications of refrigeration are rather common these days—but here's one with an unusual twist.

We refer to the case of one Bob Dunham of Del Mar, Calif. He's a deckhand on a sport fishing boat. While the boat was off the Coronado Islands recently, Dunham suffered an attack of appendicitis.

Also on board was a registered nurse, working as a galley girl. When Dunham fell ill, she knew a cold compress was needed, and quickly. But the boat carried no ice. However, it does have electric refrigeration.

This inspired her solution to the problem. As the boat sped toward shore, the galley girl-nurse, Mrs. Lucille Knitser, wrapped some cold beer cans in towels to make the compress.

After being brought ashore, Dunham underwent surgery and later was reported doing fine.

(Continued on Page 8, Col. 1)

Sutton Situation

Questions, Answers Outline Warranty 'Responsibility'

DETROIT—When a manufacturer continues in business as a corporate entity, although it no longer is producing equipment, or parts for equipment, which it sold with an extended warranty, some very interesting legal and practical problems come to the fore.

The above situation is one which now applies to O. A. Sutton Corp. of Wichita, Kan., manufacturer of the "Vornado" line of room and central packaged air conditioners, and which also produced some room units for other manufacturers, who in turn sold these units under their own name.

O. A. Sutton Corp. officials stated in a story published in the July 27 issue of the NEWS that they recognized the legal responsibility for all valid warranties on "Vornado" products except auto air conditioners, but at the same time admitted that the company was not fulfilling the demand for in-warranty parts on anything close to a 100% basis, for the simple reason that the parts are not in stock—and no more are being made or purchased by O. A. Sutton Corp., at least at this time.

A number of questions are being raised by NEWS readers. From a variety of sources, the editors of the NEWS provide the

(Concluded on Back Page, Col. 1)

Payne Offers Remote Gas Air Conditioner

LA PUENTE, Calif. — The Payne Co., long associated with the manufacturing of gas-fired heating equipment, has introduced a new remote type gas-fired air conditioning unit, according to William F. Steiner, sales manager.

"Test models have been in service for the past year in various parts of the country and have proven highly satisfactory and exceptionally efficient," the announcement said.

The Payne unit, which is called the "Miracool" air conditioner, is an air-cooled absorption refrigerated unit which supplies chilled water to the cooling coil.

"The Miracool can be adapted

(Concluded on Page 27, Col. 3)

RACCA Convention Set for Sept. 27

WASHINGTON, D. C. — A program designed to show members how to develop management methods that will lead to more profits is planned for the 14th annual convention of the Refrigeration & Air Conditioning Contractors Association.

Convention will be held Sept. 27-30 in the Ambassador hotel in Los Angeles. Theme is "Prospecting for Profits."

Ten talks already programmed were announced by Leo Howard Kerns, managing director of RACCA. They are:

"Your Profits Are Too Low" by Jack Carney, chairman of the convention and president of Commercial Refrigeration Co., Los Angeles.

(Concluded on Page 27, Col. 2)

Electric House Heating Exposition March 21

NEW YORK CITY—The first National Electric House Heating Exposition will be held at the Sherman hotel, Chicago, on March 21, 22, and 23, it was announced by the Electric House Heating Equipment Section, National Electrical Manufacturers Association, sponsor of the program.

The exposition will present the latest in all types of electric direct resistance heating equipment, zone-type heat pumps, central heat pump systems, insulation, and electric controls for heating equipment, according to the announcement.

"A total of 12,000 sq. ft. of

(Concluded on Page 27, Col. 3)

BEHIND PAGE ONE . . .

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JIPC Seeks Architect, Engineer OK

Meetings Planned To Present Temporary Heating, Cooling Specs

WASHINGTON, D. C. — The Joint Industry Program Committee for the plumbing and pipe fitting industry will attempt to gain architect and engineer acceptance of its new temporary heating and cooling specifications through meetings with representatives of the American Institute of Architects and the Consulting Engineers Council.

This was announced at a recent meeting of JIPC, which aims to develop an acceptable working plan for using newly developed specifications on temporary heating and cooling at the local level.

A sub-committee on temporary heating and cooling specifications will meet with the architects and engineers and report back to JIPC at its Nov. 16 meeting here.

The sub-committee is headed by Eugene Bradshaw of the

(Concluded on Page 27, Col. 4)

Establishes Residential Standards

'Shield' Program Set Up In Fort Worth Area

FORT WORTH, Texas — Adoption of a local "shield" program with minimum standards for residential air conditioning and heating systems has been announced here by the Tarrant County Air Conditioning Association.

The program went into effect Aug. 1, according to R. S. Phillips, president, and Col. Edwin D. McCoy, executive secretary.

A set of minimum standards was voted by the group last spring (and described in detail in May 4, 1959 NEWS).

In a recent letter sent to architects, engineers, and home builders, the association explains that each home qualifying for the ACA Shield will be identified by: (1) an outdoor job site sign, (2) a certificate attached to the unit, (3) placards and signs to call attention to the quality standards.

Each installation to be certified will be inspected by a "watch dog committee" of the association to "insure that the system meets all minimum standards and is truly a quality job," it is explained.

Both new and modernization projects may qualify for the shield.

Participation in the program is not limited to association members, but all contractors must comply with the standards and inspection requirements and share in the advertising and promotion costs.

Following are some of the requirements set forth in the association's minimum standards:

Equipment must be selected to meet the calculated load.

(Concluded on Page 27, Col. 1)

Texas Legislature Passes 3% Air Conditioner Tax

AUSTIN, Texas — The Texas Legislature has passed a $93 million a year tax bill that includes a new 3% sales tax on air conditioners at the retail level.

The governor has said he would sign the bill.

Passage came after three un-

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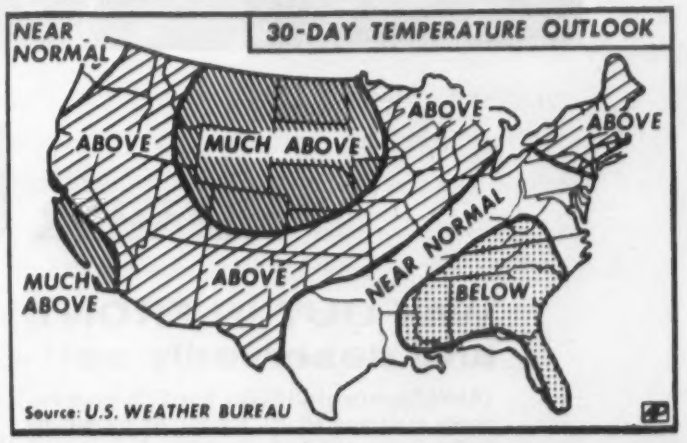

WASHINGTON, D. C. — The U. S. Weather Bureau's 30-day outlook for August calls for temperature to average above seasonal normals over most of the nation, except for below normal over the Southeast and near normal over the Southern Plains, Ohio Valley, and Middle Atlantic States. Greatest unseasonal warmth is expected over the Northern Plains.

Precipitation is expected to be subnormal over most of the Great Plains and Middle Mississippi Valley. Above normal rainfall is indicated east of the Appalachians and south of New England, as well as over the Plateau States.

June Central Oil Heating Sales 10% Higher Than Last Year—OHI

NEW YORK CITY—Sales of central oil heating equipment are continuing to show advances over 1958, with June shipments by manufacturers 10% higher than last year's in all categories of equipment, according to the Oil Heat Institute of America.

Total manufacturer shipments of residential central oil heating equipment for the first six months of 1959 amounted to 235,626 units, also representing an over-all gain of 10% over the first six months of 1958.

Oil heat boiler-burner units continue to lead in percentage gain, the June shipment total of 4,560 being 29% over June 1958. A total shipment of 21,385 units during January to June 1959 indicates an increase over January-June 1958 of 22%.

According to the OHI, June shipments of warm air oil burner furnace-burner units amounted to 26,173, up 1% over 1958 with a 6-month total of 130,763 a gain over 1958 of 3%.

June figures for oil burners shipped separately for use in homes converting to oil from other fuels, for replacements, and for field assembly, amounted to 19,271, an increase of 21% over June 1958. The 6-month total in this category was 83,476, up 18% over the first six months of 1958.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

Nashville's Main Post Office Cooled

NASHVILLE, Tenn. — Nashville's main post office, which recently finished installation of an air conditioning system, claims to be the first in the South to be completely air conditioned.

Postmaster Lewis E. Moore said he hopes to have area substations air conditioned. New ones and those remodeled will be air conditioned, he said.

Landis Resigns as Welbilt Cooling Sales Manager

MASPETH, N. Y.—Resignation of Howard Landis as sales manager of Welbilt Corp.'s air conditioning division was reported recently. He was associated with the company for six years.

AAF Announces Patent Suit Victory

LOUISVILLE, Ky. — American Air Filter Co. announced that it has won its patent infringement suit against the Farr Co. of Los Angeles in a Federal District Court.

The company's attorneys have advised it that judgment has been entered holding U. S. Patent 2,807,330 valid and infringed by the defendant.

The opinion by Judge Leon R. Yankwich sustained all five of the patent claims, according to the announcement.

The patent which was issued in the name of Richard D. Rivers of Louisville as the inventor covers the "Roll-O-Matic" and similar air filters manufactured in Louisville by American Air Filter Co. and sold by it throughout the United States and foreign countries.

Utility Appliance Names H. C. Siler Gen. Sales Mgr.

LOS ANGELES—H. C. "Si" Siler has been named general sales manager of Utility Appliance Corp., it was announced by P. L. Chabre, Utility's vice president in charge of marketing and sales.

H. C. Siler

Siler, who has been western division sales manager for the manufacturer, will supervise all field salesmen for Utility's "Gaffers & Sattler," "Mission," and "Utility" brand products.

Chabre said the promotion is an important step in the company's new sales expansion program.

"Utility is embarking on a vast national campaign to increase distribution and sales for its Gaffers & Sattler air conditioning, water heating, wall furnace, forced air furnace, industrial blower, and gas range divisions," it was stated.

Chabre indicated additional personnel promotions and appointments in the sales department will soon be announced.

George W. Brown Named President Of Wagner Electric

ST. LOUIS — George W. Brown, who was named executive vice president of Wagner Electric Co. in 1958, has been elevated to president, succeeding J. H. Devor, who died July 14.

Brown, who will serve as chief executive officer of Wagner Electric, also was elected president of Wagner Brake Co., Ltd., Toronto, a subsidiary.

The 59-year-old graduate of Ohio State university joined Wagner Electric in 1926 as a student engineer. After serving in various capacities, he was appointed personnel director in 1937.

Following military service during World War II, Brown was named industrial relations director, a post he held until 1954 and his election as vice president in charge of manufacturing, engineering, purchasing, and industrial relations. He was elected a director of the parent company and its subsidiary in 1956.

Death Notices

FLUSHING, N. Y.—Harry E. Culbertson, vice president of Traulsen & Co., Inc. here, manufacturer of commercial refrigerators and freezers, died recently in Minneapolis while on a business trip. He was born in 1903.

* * *

CINCINNATI—Otho M. Ard, former manager of National-U.S. Radiator Corp.'s Cincinnati branch, died recently. Interment was at Lexington, Ky. He joined the corporation in 1925 as a salesman in the Cincinnati branch and later served as branch manager for 19 years.

KRAMER UNICON

WAY OUT IN FRONT and deservedly so!

KRAMER's largest UNICON has 50% more capacity than any other! ▶ New, all aluminum casing ends rust and corrosion. Stands and structural steel are galvanized after fabrication. ▶Time-tested WINTERSTATS prevent low receiver pressure and insure start-up under any weather condition.

Available with horizontal or vertical air flow. Lowest silhouette. ▶ Kramer's UNICON is so quiet it can be used in unlimited multiples. ▶ No one can match Kramer's 20 years of accumulated know-how in air-cooled condensing and no other air-cooled condenser can match the Kramer UNICON—the pioneering leader in the industry.

WRITE FOR BULLETIN

KRAMER TRENTON CO./Trenton 5, N. J.

46 YEARS OF CONTINUOUS ACHIEVEMENT IN HEAT TRANSFER

Years of experience fill these shoes

Lau craftsmen pride themselves on the high quality products they continue to produce, year after year. Although the latest and most modern manufacturing techniques have been applied at Lau to supply the increasing number of blower customers, each man is still quality conscious of his part of the overall job. It is this combination of experience, pride and manufacturing integrity that maintains Lau as a leader in the blower industry. Place a real craftsman on your production team . . . call or write Lau today.

The Lau Blower Company · Dayton, Ohio

Tenney, Victoreen Consider Merger

NEW YORK CITY — Shareholders of Tenney Engineering, Inc. and Victoreen Instrument Co. will meet sometime early in September to vote on a proposed merger of the two concerns.

Directors of both companies have approved the merger plan, according to a joint announcement by David H. Cogan, chairman and president of Victoreen, and Saul S. Schiffman and Monroe Seligman, Tenney's chairman and president, respectively.

The merger would be based on an exchange of eight-tenths of one share of Victoreen stock for each Tenney share. Victoreen-Tenney Corp. is the proposed name of the new concern.

Tenney makes air conditioning, refrigeration, heating, and environmental test equipment. It has plants in Union, N. J. and Baltimore, Md. Its sales last year totaled approximately $4.5 million.

Victoreen, with two plants in Cleveland and subsidiaries in Chicago, Kokomo, Ind., and Alhambra, Calif., makes radiation monitoring and control equipment, electronic devices, and neon display signs. It had sales of $5.5 million in 1958.

The announcement said Schiffman, Seligman, and Robert H. Brown, a Tenney vice president, would join the present Victoreen directors on the new Victoreen-Tenney board. Cogan would be chairman and president of the merged firm, Schiffman chairman of the executive committee, and Seligman executive vice president.

Licensing Bill Dies In Illinois, But Heating Groups To Keep Trying

SPRINGFIELD, Ill. — A bill which would have required the licensing of all firms installing forced-air heating and air conditioning installations in the state of Illinois failed to pass during the recently concluded session of the Illinois State Legislature.

The measure had won the approval of the State Senate, but did not get to a vote in the house.

Proponents of the measure are planning to make an all-out effort to get the measure passed at the next session of the legislature two years, hence, according to Joseph Wellmuth, chairman of the Illinois State Heating Code Committee.

Chief backers of the measure are principally local heating and sheet metal associations, who claim that builder-hired and "fly-by-night" operators are installing inadequate heating and air conditioning installations throughout the state.

They plan to introduce also a bill which would permit the establishment of a minimum standards code for such installations.

Another drive planned by these groups is an effort to get the Federal Housing Administration to require higher income requirements for homebuyers who have electric heating installed in new home construction.

THESE COILS ARE ALL THE SAME!
These coils of Viking thin-wall copper tube may differ in length and dimension . . . but they are identical in that they have all been *tailored to customer requirements!*
Viking today employs the most advanced drawing and handling equipment known to the industry to deliver continuous coils of precision drawn thin-wall copper tube . . . in any desired length up to 2000 feet . . . in a wide variety of coil designs to meet individual specifications: reel-type, helical, layer or bunch.
By developing new coil techniques, originally for the instrumentation field, Viking has won the preference of more and more of America's leading manufacturers of refrigeration and air conditioning units and coils.
VIKING
COPPER TUBE CO.
CLEVELAND 10, OHIO
PRECISION DRAWN SEAMLESS COPPER TUBE

July Was Frigidaire's Biggest Sales Month, 8% Over Past Record

DAYTON—Frigidaire Div. of General Motors Corp. reported that July was the biggest sales month in the division's entire history.

Sales last month were about 8% above the previous high month, according to C. H. Menge, general sales manager.

"In addition to the usual aggressive mid-summer promotional activities, the Frigidaire sales organization in July dedicated extra selling effort to Herman F. Lehman," Menge explained.

"Lehman became GM vice president and Frigidaire general manager just three years ago and this record was a tribute to him from salesmen here at the factory, at the distributor level, and in Frigidaire dealerships coast to coast."

The record was disclosed during a regional sales meeting in New York City, the first of a cross-country series being conducted currently by the company, he said.

Top GM executives were on hand to recognize Lehman and the Frigidaire achievement, including Frederic G. Donner, chairman of the board; John F. Gordon, president; and Roger M. Kyes, vice president in charge of Dayton, household appliance, and GMC truck group.

Electric Heat Won't Go Away, JIPC Told

WASHINGTON, D. C.—"I do not believe we, as an industry, can do too much to directly oppose electric heating by simply saying that it is not what the public should want. What we can do and should do is to make available for our own use a central source of information that will assist our local groups with valid and factual engineering and economic data."

That was the recommendation offered the Joint Industry Program Committee for the plumbing and pipe fitting industry by Peter B. Gordon, chairman of the JIPC's electric heat subcommittee, at its meeting here recently.

Gordon's report, read to JIPC by J. O. Hendrickson of the National Association of Plumbing Contractors, painted a "startling" picture of rapid progress in promotion and use of electric heat as a substitute for fuel-fired heating systems across the country.

Gordon's report also commented favorably on a special electric heating report which appeared in *Gas Industries* magazine and cited case histories of comparative costs of electric heating vs. fuel-fired heating.

Clank, Clank

LAFAYETTE, Ind. — Plumbing and pipe fitting apprentices from the various states and from Canada will compete for top honors in the Sixth Annual International Apprentice Contest at Purdue university, Aug. 10 to 14.

Air Force Conference Report

'Rather Unorthodox' System Illustrates Procedure for Cooling Electronic Equipment

*By Richard Goes, Headquarters Air Materiel Command, United States Air Force**

The Electronic Data Processing Equipment hereinafter referred to as EDPE has become firmly established within the Air Force during the last few years. AMC with its vast network of procurement and supply facilities has found enormous benefits accruing, through simplification and reduction of warehousing requirements made possible by the application of EDPE.

This equipment enables instantaneous review of stock records and consequent speed up of its world-wide function of procurement and supply. To simplify, let's say that EDPE is a memory system, which can be made to divulge its secrets upon demand.

In general, the EDPE is supplied by many manufacturers in two general types which will be called A and B. (The A type has integral heat exchangers supplied from a central water chiller, which also supplies water for cooling and dehumidification of the entire area occupied by the facility. The B type is equipped with fans which pull room air from the immediate vicinity, through the equipment, with intakes in various locations and top discharge, into the general area.)

Transistor Type Equipment Will Ease Heat Load

Transistor type equipment is now in the development stage and when perfected should relieve the environmental problems considerably, since estimates indicate that they will produce less than 50% of the heat produced by existing equipment. The greatest environmental problems by far, are presented by Type B and this paper will be limited to discussion of this type.

The discharge of the warm equipment air in an upward direction must be satisfactorily mixed with conditioned supply air, or disposed of in order to provide a suitable quality of air for entrance to the EDPE. It has been our experience that the central processing unit is the primary target to be satisfied, and in the vicinity of this most critical item is usually found a hot spot.

Effects of Hot Spot

The effects of this hot spot upon the entrance condition of air to this unit can be the source of much unfavorable criticism of the entire facility. If the temperature and humidity of the air to this item of EDPE is adequately maintained and the condition of air in the remainder of the area is controlled within the required limits, little difficulty will be experienced with the entire installation insofar as equipment operation is concerned.

The central processing unit is fortunately so manufactured that part of the discharge air from it and surrounding EDPE is short circuited to the air intake with the consequence that temperature readings taken at the intake can vary 10° from top to bottom.

[The following describes a "rather unorthodox" system devised primarily because of the low ceiling height, about 8 ft. 8 in., of the room in which EDPE was installed.]

In this installation, which receives its cooling medium from centrifugal water chilling unit, the air is distributed by a hot and cold deck fan coil unit. Because of the expected high temperature of the return air and the normal damper leakage and radiant effect of the heating coil, a perforated plate to equalize pressure drop was substituted for the hot deck coil.

A reheat coil was then placed in the supply duct for Zone No. 1. All other zones are dependent upon mixture of dehumidified and return air for maintenance of environmental conditions.

Zone No. 1 air supply enters through the central portion of the ceiling, which is made up of perforated plate diffusers and light fixtures and separated from the return section by a short suspended partition. (This air is discharged at a set temperature since definite temperature rise within this area can be predicted to remain within the tolerable limits.)

The air is then picked up by the fans which are a part of each piece of equipment and discharged from the equipment top. It is then picked up at the return grilles in the ceiling at the periphery of the installation and returned to the fan coil unit. Return air from other zones is carried through the underfloor plenum.

In the original design calculations, it was estimated that a 74° discharge temperature at 50% r.h. would be required to maintain a satisfactory entrance condition to the equipment. Owing to the air inlet location (along two sides of the central processing unit reaching from bottom to top) the air temperature into the machine averaged approximately 80° F. due to short circuiting of the exhaust air from the top of this item.

While this was still within the limits set by the lessor of the equipment, it was considered marginal, and to obtain a greater safety factor the discharge temperature was lowered to 70° F. where it is now operating. To prove our point that recirculation of exhaust air was causing the annoyance, temporary make shift shields were fitted to the item, to prevent this recirculating, with excellent results. The machines are now performing, however, without shields.

Another method of improving the installation would be to cut down these side inlets, install a duct to an inlet in the underside of this item where provision has been made for such installation if desired. With greater ceiling height a more conventional installation with air discharged

(Continued on next page)

*Presented at U. S. Air Force Refrigeration and Air Conditioning Conference, Wright-Patterson Air Force Base, July 13 to 16, 1959.

The McQuay Thermex® hot gas thermal exchanger defrosting system is the simplest available today, yet you save up to 25% on initial costs. You get extra-rapid defrosting due to the Thermex® accumulator, which also affords protection to the compressor by keeping raw liquid from the compressor until it is vaporized. The McQuay Thermex® system is fully automatic, and the number of defrost cycles can be adjusted to meet any requirement. Before you select any hot gas defrost system, investigate the McQuay Thermex® system. Eight sizes are available, from 3,000 to 32,000 Btu/hr at 10° T. D. See your McQuay wholesaler, or write McQuay, Inc., 1607 Broadway Street N.E., Minneapolis 13, Minnesota.

McQuay INC.

AIR CONDITIONING • HEATING • REFRIGERATION

Cooling Electronic Equipment--

(Continued from preceding page)

over the entire area has proved satisfactory.

We have had success with perforated diffusers plus the higher volume type outlets strategically placed to provide complete mixing of the up to 100° EDPE discharge air with the conditioned supply air, to provide a satisfactory room condition. However, all EDPE facilities have one thing in common —some hot spots. Howeve.', these can be kept within the limits of comfort and the limits set by the manufacturers of the equipment.

Lists Requirements Of Satisfactory System

A list of the requirements of a satisfactory installation might be as follows:

a. Reliability of the entire environmental system.

The environmental requirements, although having a wide tolerance, have rigid limits, which, if violated, permit the lessor to close down the facility. By the way, I understand that the rentals run into five and six figures per month. So shutdowns are costly. The lessor maintains resident servicemen at the installation for maintenance of this equipment, and they keep a close watch on temperature and humidity. Thus ease of maintenance becomes a primary requisite. This can be achieved by providing good but simple equipment and controls and arranged for the best and earliest possible access.

b. Proper air distribution.

With the high equipment heat loads imposed on the cooling system, it is necessary to provide large quantities of supply air. The temperature rise through the EDPE given by the manufacturer approximates 15° to 20°. With room temperature maintained between the limitations of 70° and 80°, and equipment discharging air from the top at 85° to 100°, it becomes evident that air distribution is a major problem.

Disadvantages of Under-Floor System

This is the main argument for under-floor distribution. However, in the opinion of AMC this advantage is not sufficient to override the disadvantages. Some of the disadvantages can be listed as follows:

(1) Under-floor ducts cause loss of the flexibility which the using agency insists upon.

(2) Under-floor ducts increase installation cost.

(3) Under-floor ducts require increased height for the raised floors, thus cutting down on the available ceiling height which is usually limited since all EDPE facilities operated by AMC are in reworked existing buildings.

(4) Under-floor supply plenums add to the dirt and dust problems, and excessive leakage, due to numerous floor openings and removable panels, is a problem.

c. Raised floors.

Raised floors are required due to the electrical wiring and cables which are a part of these installations. To enable ready access the floors are installed as removable panels. In many installations the floor panels are hard wood resting on wood or steel supports, shimmed up to provide a level floor. Today commercially prefabricated floor installations with leveling jacks, stringers and vinyl or rubber tile covered, removable panels are available. The hardwood floor panels and make shift supports leave much to be desired, and the commercial floors are mostly used.

d. Recording instruments.

Recording instruments within the EDPE area are a requirement. These should be the non-electric type so that temperature and humidity will be recorded even if a power failure occurs, since if the permissible limits of temperature and humidity are violated, certain maintenance procedures are re-

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(USAF PHOTO)

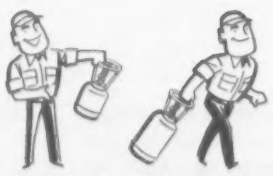
MILITARY AND INDUSTRY get together at a reception during the sixth annual world-wide Air Force Refrigeration and Air Conditioning Conference at Wright-Patterson Air Force Base, Dayton, Ohio, July 13-16. Shown here are, left to right: Rudy Berg, president of ARI; Brig. Gen. E. B. Cassidy, director of personnel and support operations for the Air Materiel Command, host to the conference; John H. Spence, International Educational Director, RSES; the Honorable John M. Ferry, Special Assistant for Installations, Office of the Secretary of the Air Force; Maj. Gen. A. M. Minton, Director of Civil Engineering for the U. S. Air Force; A. E. Manning, president of RSES; and Arthur J. Hess, ASHRAE president. Some 300 conferees attended, nearly one-third of them from the air conditioning and allied industry. (Cover story was published in Aug. 3 issue of the NEWS. Other articles on technical talks will appear in later issues.)

There's still time to get your

FREE GENETRON

It's a Cylinder Carrier!
Extra strong! Ring and rods made of ½" rolled steel.
Grab it anywhere! Carry ring is 22 inches around.
Built to last! All joints are arc welded.
Secure! Won't slip off. 13/16" neck ring screws all the way onto cylinder.
genetron 12

Offer good through August



Interchangeable!

Ideal for service use.
Use on any 10 lb. or 25 lb. refrigerant cylinder.

BIG VALUE! Worth at least $5 retail! Yours free when you buy "Genetrons" during August. Don't miss it!

General Chemical does it again! Brings you another special tool right in the busiest part of the season when you can use it most.

This time it's a heavy duty interchangeable carry-stand, specially made for 10 and 25 pound refrigerant cylinders. And it's yours free!—a gift from your wholesaler with the purchase of 22 pounds or more of Genetron refrigerants during August.

Remember—supply is limited. Only one to a customer. If you haven't already got yours, get it now! See your wholesaler!

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

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quired by the EDPE service personnel.

e. Minimum outside air.

For a facility such as the EDPE facility, we at AMC do not favor the normal Air Force provision for 100% outside air. Our reasons for this are: (1) Difficulty in preventing excess air leakage. When maximum outside air dampers should be closed this excess leakage will add to the total load during periods when maximum cooling is required thus adding to the design capacity requirements of the equipment. (2) Provision for 100% outside air will add to maintenance and operations cost of the filters.

f. Provision for minimum traffic.

Minimum amount of traffic is desirable since traffic is a source of dirt and dust and once created or brought into the EDPE room must either be removed by house-keeping means or by filters. In either case, much of the dirt and dust becomes airborne and tends to diminish the full advantage of the high efficiency filters and represents potential maintenance requirements for the EDPE.

g. In this same category of dust problems is the building with structural members exposed or with poorly constructed ceilings which allow dust and dirt (which will accumulate in time) to drop or sift down into the EDPE area.

h. Ramps.

Since the EDPE must be mounted on a raised floor and raised floors are expensive, their use should be held to a minimum.

Ramps are normally required between the storage and service areas and the EDPE area. Machines must be removed from the EDPE areas to the service area for maintenance, and tapes must be transported between the EDPE area and the tape storage room.

As a closing note, where it will not be so easily forgotten, let me say "A reliable system must provide for easy and simple maintenance. Every system will require maintenance at one time or another. The more the designer considers the maintenance man's problems, the more reliable system he will design."

Harris Issues Catalog

CAMBRIDGE, Mass.—A new catalog folder by Harris Refrigeration Co., 308 River St., Cambridge 39, Mass., illustrates and describes its new series of temperature and humidity chambers, ranging from a 2-cu. ft. portable unit for small requirements up to a 10-cu. ft. production testing model.

Manufacturers Ship 2,552,102 Compressors During First 4 Months

WASHINGTON, D. C.—Manufacturers' shipments of compressor bodies during the first four months of 1959 totaled 2,552,102 units, it was reported by the Air-Conditioning & Refrigeration Institute.

The April total was 732,040 units, compared with 731, 970 in March, 560,571 in February, and 518,755 in January.

Since compressor bodies designed for use in household refrigerators are being included for the first time in 1959 figures, the four-month total is not comparable with the total for a similar period of last year—1,421,489 units, *not* including household refrigerator units.

Figures for compressor bodies designed for use in automotive air conditioning are comparable, however, and show a total of 222,391 shipped in the first four months of 1959, against 174,119 during the same period of 1958.

Breakdown of shipments by size categories, and the names of reporting companies follow:

MANUFACTURERS' SHIPMENTS OF COMPRESSOR BODIES PRODUCED BY REPORTING COMPANIES

(Including units for household refrigerators)

	Shipments Including Exports	
*Horsepower	April, 1959	Jan.-April, †1959
¼ & under	117,041	438,568
⅓	}	}
½	67,424	255,204
¾	179,735	576,200
1	31,700	104,183
1½	12,781	50,763
2	9,911	31,471
3	113,685	453,799
5	40,611	124,129
7½	58,126	173,463
10	17,587	54,831
15	12,158	38,470
20	4,775	15,520
25	1,290	5,199
30	746	2,362
40	165	620
50	243	778
60	199	620
75	191	651
100 & over	158	465
Total	106	372
	74	233
	70	173
	668,776	**2,329,074**
For Auto Air Conditioning—Total	63,098	222,391
For Ammonia Refrigerant—Total	166	637
Grand Total	**732,040**	**2,552,102**

Reporting companies: Airtemp Div.; Bendix-Westinghouse; Brunner Div.; Carrier Corp.; Copeland Refrigeration; Curtis Mfg. Co.; Frick Co.; ‡Frigidaire Div.; §General Electric Co.; Gibson Refrigerator Co.; Kelvinator Div.; Lehigh, Inc.; Tecumseh Products Co.; Trane Co.; Vilter Mfg. Co.; Westinghouse Electric Corp.; Worthington Corp.; York Div.

Unless otherwise noted, this summary includes compressor bodies shipped by the reporting companies **regardless** of whether they were shipped separately or incorporated into a condensing unit or unitary end-use product (such as a self-contained air conditioner, display case, freezer, household refrigerator, or commercial refrigerator). Reporting companies were specifically asked to include export shipments, units for household refrigerators, and replacement units that are not in warranty.

In order to avoid duplication of reporting, shipment figures were requested only from companies that assembled the machined compressor casting with the components necessary to make a complete compressor or motor-compressor assembly.

NOTES: In order to avoid disclosing the figures of individual companies, some data for two or more sizes are combined on ARI summaries.

Due to the inclusion of units for household refrigerators for the first time starting in 1959, comparable figures for 1958 are not available.

*For all refrigerants **except** ammonia (excluding units for automotive air conditioning).

†Includes revised data reported to ARI.

‡Report includes units for automotive air conditioning only.

§Report includes units for unitary air conditioning only.

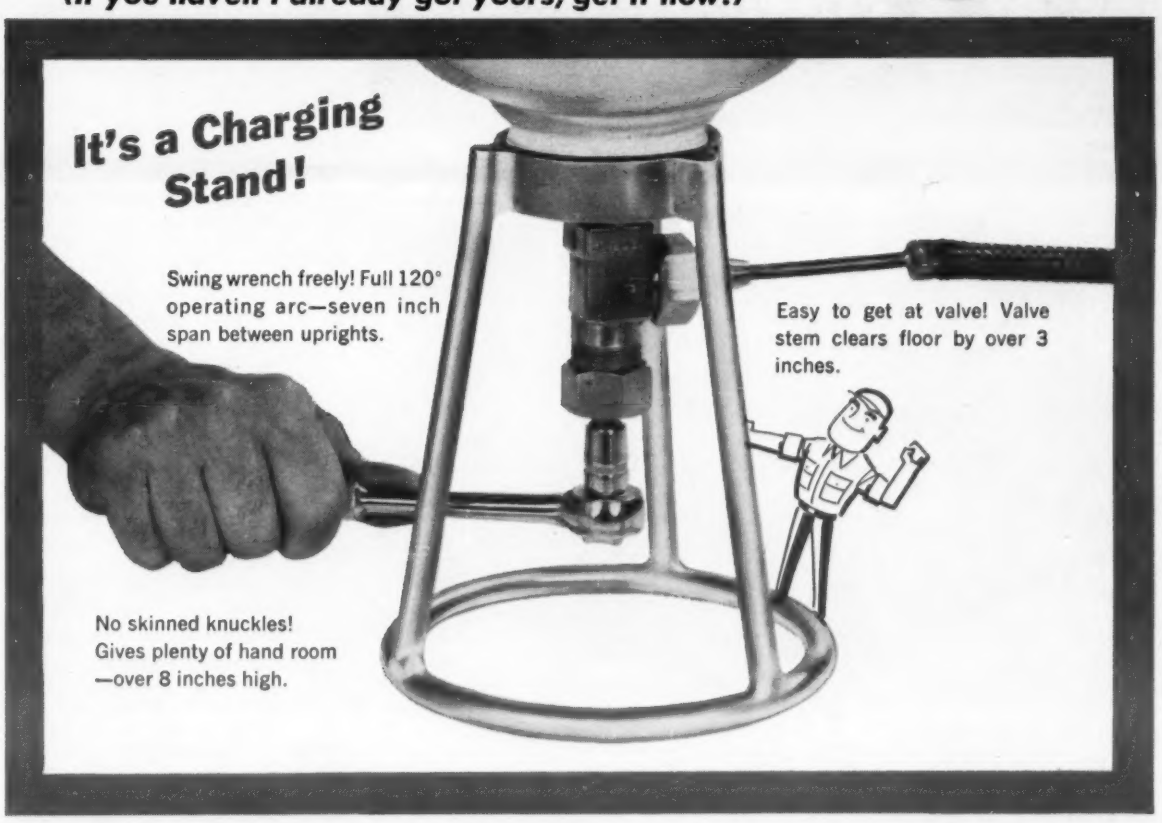
Controls Co. Boosts Common Stock Shares

SCHILLER PARK, Ill.—A special meeting of stockholders of Controls Co. of America voted an increase in the company's authorized $5 par value common stock from 1,000,000 to 3,000,000 shares.

The action paved the way for a 50% stock distribution that was declared last June 10 subject to approval of the share increase. The distribution will total 357,361 shares and will be made Aug. 10 to stockholders of record July 24.

CARRY-STAND

(If you haven't already got yours, get it now!)


It's a Charging Stand!
Swing wrench freely! Full 120° operating arc—seven inch span between uprights.
Easy to get at valve! Valve stem clears floor by over 3 inches.
No skinned knuckles! Gives plenty of hand room —over 8 inches high.

with purchase of 22 lbs. or more of

genetron®

SUPER-DRY REFRIGERANTS/

A Gift from Your Wholesaler

Supply limited! Only one to a customer!

Inside Dope

F. TAUBENECK
By GEORGE

(Continued from Page 1, Col. 1)

Ah Research! It's Wonderful

Bulletin from the Schwerin Research Corp., which does research for the TV-radio business, reveals an amazing discovery. We quote:

"A commercial in which a wife lay in bed while her husband served her breakfast did fairly well among women, but was reacted to negatively by men."

We don't know how much this profound research cost, but it's bound to have powerful repercussions. Research! Ah Wilderness!

Protect Yourself!

In his annual report to the 68th Convention of the National Association of Refrigerated Warehouses, Philip G. Kuehn, president of the Wisconsin Cold Storage Co., Milwaukee, urged members in Washington to call upon their Senators and Congressmen and demand reduced Federal spending plus a balanced budget.

"It is disgraceful that so many of our citizens have failed to express themselves to Congress on the spending issue," he charged. "To many, particularly in the business community, have simply rolled over and played dead.

"In 1954, you had the courage to pass a resolution calling for an end to high rigid farm price supports, even though you were direct beneficiaries of that program.

"I urge you to demonstrate that same rugged individualism by distinctly separating yourselves from the vote-buying advocates of wild spending and the selfish pressure groups who want something for nothing by demanding that Federal spending be cut so the budget may be balanced."

Amen, brother!

Ah Brevity!

A union official signed in at the Drayer-Hanson reception desk. Negotiations were underway between his union (The Refrigeration Fitters, Branch of Local 250 of the United Association of Journeyman and Apprentices of the International Plumbing & Pipe Fitting Industry of the United States and Canada) and the Los Angeles air conditioning manufacturer.

His official entry:

NAME: Gene Ballard
FIRM NAME: Union
REASON FOR VISIT: Money
PARTY TO SEE: Mr. Hunt

Out of Our Mailbag

Sweeney Engineering Co.
Lima, Ohio

Editor:

I believe that I have been a reader of your magazine since it's inception and, over the years, have enjoyed very much some of the stories that appeared in your column.

I heard a good one. It is attached, hereto. It may be at least ten seconds before you could get a laugh out of it.

I believe that your magazine is read more by the members of this organization than any other trade journal that we subscribe to.

C. F. SWEENEY

After buying a ticket at the Union Station, in Cleveland, a colored man in walking to his train gate stopped and read the sign on the scale.

He stepped on the platform, put a penny into the slot, and very carefully read the card that came out. It said:

"You weigh 205 lbs.—you are a colored man—and you are going to Chicago."

He talked to himself for a minute about this stark phenomenon and then he saw an Indian approaching. He asked the Indian to get on the scale. The Indian stepped on and said, "Ugh."

The colored man placed a penny in the slot, took the card and stepped back and read:

"You weigh 185 lbs.—you are an Indian—and you are going to Columbus." The Indian said, "Ugh, ugh."

The colored man stepped back and looked at the card, and looked at the machine, and then he said to the Indian, "Indian, give me your blanket," and he placed the blanket about his shoulders and said, "Ugh" and he stepped on the scale and said, "Ugh" and he placed a penny in the slot.

The ticket came out of the machine, he stepped back and he read the ticket:

"You still weigh 205 lbs.—you are still a colored man—if you hadn't fooled around with this Indian, you would not have missed your train to Chicago."

Soc. Ing. Carlo Ferrari
Torino, Italy

Editor:

I have appreciated very much the contents of your articles and the dynamism that you put in your job and I am glad to renew my NEWS subscription.

I wish that your bright newspaper become more and more wide spread all over the world.

NOVELLINI ALESSANDRO

Service Parts Co.
Melrose Park, Ill.

Editor:

Mr. Merrill's open letter in the July 6 issue of A.C.H. & R.N. was interesting and I'm sorry to hear that he has suddenly become fed up with our industry. I'm not fed up with it—I like it. I like the people in it and I'm sure I'd enjoy knowing Mr. Merrill.

The people in our industry are just like the people in any other industry, and they're just like customers in our industry or any industry. Our people are customers to other industries, and customers in our industry are manufacturers or dealers or contractors for other industries.

It therefore becomes a revolving exchange of goods among people, and people, in our industry, are no different from people in any other industry. We have what seems to be more than our fair share of problems, but in reality I'm sure the other industries have every bit as many as we do.

Mr. Merrill's article has hit directly at one of the very weak spots in our industry, and I believe he certainly is right in his contention that quality seems to have taken a back seat to price. This is true of many industries, not only ours, because we are in

(Concluded on Page 11, Col. 1)

Kennard Multi-Zone Units assure consistent performance in all zones of a system!

KENNARD

Are the air conditioning units you last specified meeting design conditions *consistently?*

Kennard Multi-Zone air conditioning units are designed to meet load conditions accurately, in every zone in your system. Opposed-acting zone control dampers automatically control climate conditions in each zone.

Kennard design provides for use of direct expansion, chilled water, steam or hot water coils. Two coils—one for cooling and one for heating—which operate in parallel, are installed in each unit to supply accurately conditioned air during any season of the year. Exclusive Penta-Post frames (5 brake members) and strong sectionalized construction assure maximum year-round performance.

For more complete information see your Kennard representative or write: Engineered Air Systems Division, American Air Filter Co., Inc., 109 Central Ave., Louisville, Kentucky.

OTHER AIR CONDITIONING, HEATING, VENTILATING PRODUCTS

PACKAGED LIQUID CHILLERS

Kennard's shell-and-coil chiller puts this Packaged Liquid Chiller in a class by itself in the 20 HP-150 HP range. Exclusive internally-finned tubing, built as an integral part of each tube, overcomes costly heat transfer problems on the refrigerant side.

AIR HANDLING UNITS

The Kennard line includes 14 sizes of horizontal and vertical air conditioning units with CFM ranging from 400-36,000. Heating and ventilating units with 400-36,000 CFM capacities for steam or hot water systems.

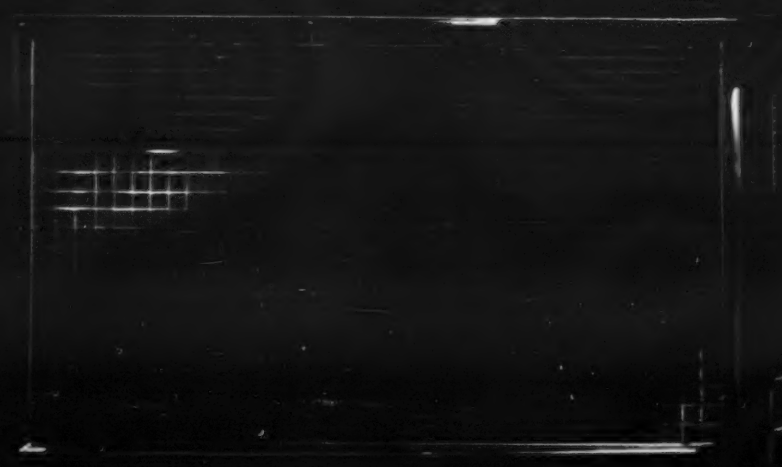
COOLING-HEATING COILS

Controlled Kennard quality is featured in a complete line of cooling and heating coils including direct expansion, chilled water, steam (non-freeze and standard), and hot water.

The Kennard line also includes cooling towers, evaporative condensers, sprayed and finned coils for heating and cooling service.

AAF American Air Filter
BETTER AIR IS OUR BUSINESS

Kennard is a famous brand among AAF products



WRAP AROUND CABINET ENCLOSED ON EACH SIDE BY ALUMINUM EXTRUSIONS

PERFORATED STAMPED GRILLES

Aluminum

offers new design versatility in

AIR CONDITIONERS

through New Forms, Finishes and Fabricating Techniques ⟶

WRAP AROUND CABINET OF COLORWELD COIL EXTERIOR GRILLE OF EXPANDED ALUMINUM

HINGED GRILLE OF ALUMINUM SLATS

EXPANDED METAL GRILLE

How Aluminum offers air conditioner manufacturers FLEXIBILITY and ECONOMY IN STYLING, FABRICATING AND FINISHING

The sketches on the front side by Reynolds Styling and Design Department suggest a few of the many new ways that strong, lightweight, rustfree aluminum can contribute to air conditioner design. Because aluminum is the most versatile of all metals, it permits a wide range of styling freedom and fabricating and finishing techniques. Here are a few examples:

In fabrication, aluminum can be drawn, extruded, cast, stamped, roll formed, expanded, perforated or pierced. (The "idea" sketches show examples of expanded, extruded, stamped and perforated applications in air conditioner cabinets and grilles.) A wide choice of *attachment* methods is also available: welding, mechanical fasteners, tabs and cast pegs, bolts and rivets, metal stitching and epoxy resin adhesives are among the most common. In finishing, a wide variety of sales appealing *colors* can be easily obtained through painting or color anodizing. A variety of surface *textures* is also available.

This versatility also points the way to *manufacturing economies.* For instance, modern techniques in design, tooling and assembly permit higher rates of production with aluminum at low cost. Aluminum extrusions, with their nominal die costs, are a good example. Aluminum's light weight cuts costs of certain reinforcing or supporting parts. Lightweight aluminum also lowers handling and shipping costs. And lightweight, easier-to-handle aluminum air conditioner cabinets add important *consumer sales advantages*—especially in portable units.

Economies in finishing are also worth investigation. One-Side-Bright Aluminum can be used to eliminate costly buffing operations. Pre-painted aluminum sheet (Reynolds Colorweld Aluminum Coil) is ideal for applications calling for a painted stock. (Note air conditioner cabinet application in "idea" sketches.) Colorweld Aluminum Coil will take most forming and fabricating operations without damage to paint surface.

Embossed or brush finished aluminum sheet, in standard or special designs, requires no additional finishing operations—permits low cost styling "change-overs". Laminates of aluminum with vinyl plastics or wood cut costs and weight in sandwich panel and other decorative or functional part construction.

Permanence of aluminum is important to you and your customers. Aluminum cannot rust, ever. This means that neither in-the-wall condensation nor year after year exterior exposure to the elements can cause aluminum cabinets to deteriorate. Unsightly rust stains on walls are eliminated.

New ideas for using aluminum in air conditioners and other appliances are being developed constantly. Reynolds Styling and Design and Product Development groups are ready to assist your own stylists and engineers in putting the newest and best aluminum forms, finishes and fabricating techniques to work in your products. Reynolds fabricating facilities are also at your service to assist in actual fabrication of finished aluminum parts. For highest quality aluminum mill products or for details on these services, contact your nearest Reynolds branch office or write *Reynolds Metals Company, Box 2346-AV, Richmond 18, Virginia.*

NOTE: Before you make or buy any appliance part, have it designed and priced in aluminum. Remember—basic material costs do not determine part costs. New techniques and processes—applicable only to aluminum—can often give you a better product at a lower *final* cost.

REYNOLDS ALUMINUM

Inside Dope

By GEORGE F. TAUBENECK

(Concluded from Page 8, Col. 5)

an era of "Fire Sales," 50 to 70% discount on furniture," "Moving Sales" and "Buy Wholesale."

However, we won't correct our situation by having everyone go out to sell quality, as Mr. Merrill recommends. We have this situation today and everyone is selling quality: His own. Quality is simply a comparative value, or relative benefit, and whether we sell at low prices or high prices, we sell a certain quality or value at a given price.

In our wholesale distributorship, we sell a certain quality in the product itself, we add qualities in our warehousing services, delivery service, sales terms, parts inventory, counter pick-up services, sales personnel, and many more. When we sell any single item we sell a total "Quality" which includes portions of many services and we do it at a given price.

Mr. Merrill's employer, Acme Industries, must operate on the same general principles and the net result is a certain "Quality" which he offers. In the final analysis, every manufacturer, Contractor, Distributor, Dealer, Architect, and Engineer, is therefore selling a certain "Quality" today.

I believe what Mr. Merrill has reference to could be more accurately described as an apparent disregard for higher priced merchandise, even though the higher priced merchandise would prove more economical and give the user more satisfaction over a longer period of time. This is truly higher quality because it offers more relative benefit or comparative value.

However, higher quality does not necessarily mean higher sales, much as we all wish the two were inseparable. Lower priced merchandise, generally of lower quality, almost invariably outsells higher priced merchandise with its finer quality. The auto industry, appliance industry, shoe stores, department stores, clothing manufacturers, and any number of other industries support this fact.

Each quality level takes its share of the total market, but the number of consumers in the lower price bracket far exceeds those in the higher quality. This seems to be even more true in our industry, and I believe it is really this apparent unbalance which is of so much concern to so many of us.

Correcting the situation, so that we have a reasonable balance, is not a simple matter. Higher quality systems will be demanded by the customer, the man who pays the bills, only when he is convinced that the greater benefits are there. So we, as an industry, must educate the consumer as to relative benefits.

Basically, this would be a contractor function, since in the chain of distribution, the contractor serves the consumer. The contractor cannot educate the consumer until he is first convinced of the better quality. So the distributor or manufacturer must first educate the contractor.

To do that, the manufacturer or distributor must also be convinced of his merits. Since low price seems so much in demand today, it appears to me that the consumers have not been convinced of the greater benefits derived from higher priced systems, and this is just as true in the Chicago area as in any part of the country.

Let me add very quickly that I don't believe the contractors have been lax in educating the consumer. In my 12 years of dealing with contractors I find they are a very competent group of people and work hard for a profit just like all of us. It appears to me that our young industry does not have the foundation necessary to support a business so complex and varied.

I believe, as Mr. Taubeneck expressed in one of his editorials some time ago, that we have a considerable amount of work to do within our own industry, namely that of educating your own people.

Once our people are properly trained and educated and given the tools to educate others, the consumer will become educated rather quickly. This includes many things, most of which have been mentioned in our trade papers in the last few years, and it will take some time to come about.

A few of these are: More honesty in advertising, uniform methods of testing and rating equipment, schools for training various personnel, wider distribution of technical data, adapting local standards of quality, licensing contractors, more realistic warranty policies, adopting uniform codes, uniform handling of warranties, and an industry policing agency.

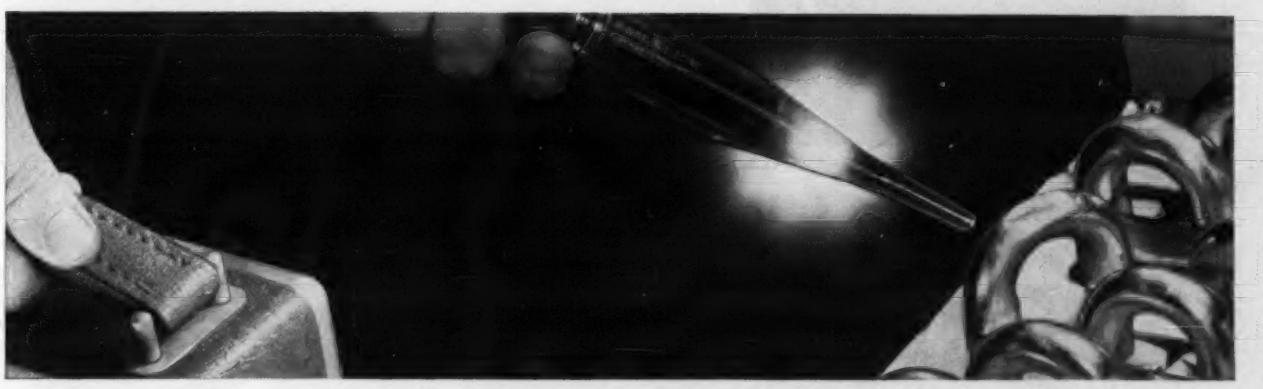
No doubt, eventually, these and many more steadying forces will come to bear upon our industry. Even now we are working on some of them and making progress. Because we have good people all through our industry we will continue to make progress, and one day we'll find each man selling his rightful share of the particular quality he offers.

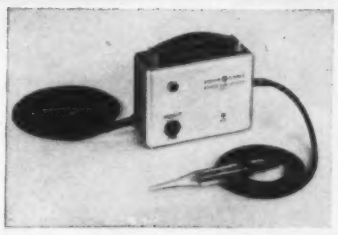
H. F. KRANTZ

Trying to find the right man for a hard-to-fill vacancy-the NEWS' Classified Ads are read by your man.

Place your ad today!

locates leaks in a flash . . .





This new General Electric Type H-6 leak detector flashes a probe light instantly when the tip pinpoints a leak. Air-conditioning and refrigeration leaks (even as small as ½ ounce per year) are detected quickly and positively in a flash! ***Eliminates costly guess work.*** As soon as the tip of the probe finds a broken seam or leaky joint, there's a reliable signal right in your hand! The H-6 has an automatic balance circuit . . . you can locate leaks even when the atmosphere is contaminated with refrigerants up to 100 ppm. Flip the switch and start probing in only 60 seconds. This sensitive unit ***responds to leaks quickly,*** recovers in a second. It's compact, lightweight, rugged, portable . . . and attractively designed. Always enjoy fast, positive, sensitive detection—at low cost—with the Type H-6. Or, for other special applications, select from General Electric's complete line of portable and stationary halogen units for pressure or vacuum leak testing. Get the full story today! Just contact your local air conditioning and refrigeration wholesaler, or write direct to Sect. 595-203, General Electric Co., Schenectady 5, N. Y.

Other Instrument Department Products for Industry—*Hook-on volt-ammeters, electric recorders and controllers, pyrometers, timing devices, speed and color measurement, laboratory test instruments.*

Progress Is Our Most Important Product

GENERAL ELECTRIC

Nuclear Ship 'Savannah' Completely Air Conditioned with 'Weathermasters'

CAMDEN, N. J.—Passengers and crew of the Nuclear Ship *Savannah*, which touched water here for the first time July 21, will play and work in completely air conditioned comfort regardless of the sea or season.

The luxury merchant ship has accommodations for 60 passengers and 130 crewmen. Atom heat, balanced with Carrier cooling, will be distributed by 146 slim Weathermaster air handling units for air conditioning of living, public, and work spaces.

Cooling will be supplied by chilled water from a marine centrifugal refrigerating unit of 210 tons' capacity. Additional low temperature systems will refrigerate cargo and food storage areas at temperatures ranging from 0 to 45° F.

Savannah's below-deck nerve center, the operating area adjacent to the reactor and turbines, will be open to passenger visits instead of being off limits as will conventionally powered ships. This is possible because the area will be air conditioned, it was pointed out.

The company has already air conditioned all but one of the Navy's atomic-powered submarine fleet and is currently furnishing cooling equipment for a nuclear cruiser and destroyer, and a catapult compression plant for an aircraft carrier now under construction.

Edwards Manual Covers 'Airvec' Unit

POMPTON PLAINS, N. J.—A 16-page manual on the installation, operation, and advantages of the Edwards "Airvec" unit is being offered by the Edwards Engineering Corp., 101 Alexander Ave. here.

This air conditioning or refrigeration condenser requires no motors, fans, water, or maintenance, the company said.

The manual includes suggested combinations of Airvec sections from 2 to 200 tons, trade prices, detailed diagrams of typical Airvec installations, and other information. It is available, without charge, to architects, mechanical engineers, purchasing agents, and anyone else responsible for selecting of commercial or industrial systems.

ARI Urges Those Planning To Attend Atlantic City Show To Make Reservations

WASHINGTON, D. C.—Visitors who plan to attend the 11th Exposition of the Air Conditioning and Refrigeration Industry at Atlantic City Nov. 2-5 are urged to get their hotel or motel reservations in to the Housing Bureau as soon as possible to assure that accommodations they desire are assigned to them in advance of the big show.

Hotel or motel reservation forms may be obtained directly from the office of the Show Director, ARI, 1346 Connecticut Ave., N.W., Washington 6, D. C. These reservation forms list the rates for first-class hotels and motels in Atlantic City, and provide for first, second, and third choices.

When completed, they are to be sent directly to the Housing Bureau, 16 Central Pier, Atlantic City, N. J. Applications may be made direct to the Bureau without using the form, also, it said.

Although there are 10,000 first-class hotel rooms in the Exposition City, plus 20 or more motels, the sooner applications are sent in the more certain visitors are of receiving the type of accommodations sought, Show Director George E. Mills pointed out.

Now Representing . . .

Modine Mfg. Co.—STAUP & HARRIS ASSOCIATES, INC. has been appointed representative in the Chicago sales territory. Formed to replace D. S. Paden who retired July 31, the new firm has offices at 9 South Clinton St., Chicago. James J. Staup, president, was formerly sales manager for Schemenauer Mfg. Co., Holland, Ohio. John F. Harris, vice president and former Modine engineer, had been a salesman for Paden.

Lehigh Mfg. Co.—TRACO INDUSTRIAL CORP., New York City, has been appointed distributor for the metropolitan New York area.

Kerotest Mfg. Co.—WEEKS & CO., Brookline, Mass., has been named manufacturer's agent to cover Maine, Massachusetts, Vermont, New Hampshire, Connecticut, and Rhode Island.

Havsco, Inc.—This new organization, located at 70 East 45th St., New York City 17, announced that it is manufacturers' representative for the following companies in the heating, air conditioning, and ventilating field: Modine Mfg. Co., Cambridge Filter Corp., Universal Diffuser Corp., and Mammoth Furnace Co.

The Pyle-National Co.—Appointment of CURTIS H. STOUT, INC. as manufacturer's representative in the south-central area has been announced. The Stout organization has offices in Jackson, Miss.; Little Rock, Ark.; Memphis; New Orleans; and Shreveport, La. It was also announced that D. W. JACKSON, formerly of Pyle-National's New Orleans district offices, has been assigned to the company's district office at Houston as a sales representative.

Sparkler-Filtrion Corp. (North Chicago)—INDUSTRIAL STEAM, INC., MILWAUKEE, has been appointed sales representative for the new "Filtrion" automatic side-stream boiler water control system in eastern Wisconsin including Milwaukee and the Upper Michigan area.

Gibson Refrigerator Co.—WALTER B. LLOYD CO., Salt Lake City, has been named distributor of all Gibson products in Utah, the southern half of Idaho, part of Nevada, and a few counties in western Wyoming. HAWAII HOTEL & RESTAURANT SUPPLY, INC., Honolulu, has been appointed distributor of the white goods line in Hawaii.

Tecumseh engineering VISION

37 MILLION COMPRESSORS IN THE FIELD

now offers full coverage of the COMMERCIAL MARKET

WITH 127 HERMETIC CONDENSING UNITS.

With the introduction of the new 2 and 3 H.P. low temperature hermetic units, the Tecumseh line is now complete for all normal commercial applications. Within the space of a few years time, this line has grown from only 9 units to today's blanket coverage.

Hermetic units now cover the range from 1/8 to 5 H.P. with variations for condenser cooling (air, water, and air-water), refrigerant, back pressure, torque and electrical characteristics. Every model has built-in sales features which are important to every user of refrigeration equipment.

This hermetic line is further backed up with 86 replacement compressors together with a full range of conventional equipment. Now you can sell matching Tecumseh equipment for all commercial applications. Investigate the outstanding advantages of going Tecumseh all the way!

TECUMSEH

The Leader Serving Leaders in the Air Conditioning and Refrigeration Industries

TECUMSEH PRODUCTS COMPANY

MARION, OHIO — TECUMSEH, MICHIGAN

FOREIGN OPERATIONS DIV: P. O. Box 2280, 24530 Michigan Ave., W. Dearborn, Michigan

CANADA: Tecumseh Products of Canada Limited, 1667 Dundas St., London, Ontario.

Thinking of—

- **changing territories**
- **expanding your territory**
- **taking on new lines—**

Check the

CLASSIFIED ADS

Your opportunity may be there.

Trane Names Case Sales Manager for Home 'Climate Changer'

LA CROSSE, Wis.—Harry J. Case has been appointed manager, residential "Climate Changer," it was announced by A. C. Menke, vice president heating and air conditioning sales, The Trane Co.

H. J. Case

Trane residential Climate Changers are central units that can include both cooling and heating equipment.

"Growing acceptance of central systems for heating and cooling by homeowners and the demand for Trane units has been highly encouraging," he said. Recognizing these trends, we have appointed a sales manager to direct current sales programs and facilitate growth."

Case, former manager, jobber sales, succeeds William Lindsay, whose promotion to manager, packaged equipment sales, was recently announced.

Fort Worth Claims Title: 'A. C. Capital of South'

FORT WORTH, Texas — Not counting tens of thousands of window units, there are 8,364 fully air conditioned homes, industrial plants, and commercial establishments in the Fort Worth metropolitan area, according to Col. Edwin D. McCoy, executive secretary, Tarrant County Air Conditioning Association.

These central systems represent 109,216 tons, he says in the annual special air conditioning issue of *Fort Worth,* monthly publication of the local Chamber of Commerce.

Lead article in the issue calls Fort Worth "the recognized air conditioning capital of the South," partly on the basis of installed equipment and partly because of the presence of five manufacturers in the city: Lennox, Mathes, A.R.A., Clardy, and Lindustries. The latter three produce automobile air conditioners.

Individual articles about the various manufacturers, the association, and some installations also appear in the special issue.

G-E, Hupp Settle Patent Dispute

CLEVELAND—Settlement of a dispute between Hupp Corp. and General Electric Co. over alleged infringements of patents on air conditioning and appliance products was disclosed by Don H. Gearheart, Hupp president.

Gearheart said the settlement provides Hupp with a royalty-free license to use 16 G-E patents, plus a cash consideration. In exchange, he said, G-E is granted a non-exclusive, paid-up license to use a Hupp patent for fractional horsepower compressors used in refrigeration and air conditioning products.

The amount of cash involved was not disclosed.

York Sets Up Renewal Parts Depot Network

YORK, Pa.—The York Div. of Borg-Warner Corp. has completed the establishment of a nationwide network of renewal parts depots to serve its engineered machinery equipment, according to Henry M. Haase, president.

Each depot is an independent company, functioning as a wholesaler to the trade.

Haase described them as "strategically located and adequately stocked to effectively serve parts requirements of York Associates, independent contractors, service companies, and industrial users in their assigned territory.

"These parts depots were established to replace and improve the coverage and service of the former York district and branch warehouses that have been discontinued," Haase pointed out.

"Located in or near the same cities as our former warehouses, plus additional major trading areas, the new parts depot network will provide faster delivery and more personalized service," Haase said.

The 24 depots are arranged to serve every county in the United States and thus insure savings of time and money for customers in the air conditioning and refrigeration field.

Granted Charter

LAFAYETTE, La. — Coastal Air Conditioning & Electrical Works, Inc., 116 Sharon St., this city, has been granted a state charter to engage in a general contracting and construction business.

Authorized capital stock is $25,000.

Testimonial:

Jim Moore, Not Jim Wood Did a Good Job for Lady

NEW YORK CITY—At the Lennox Women's Forum held here recently, Mrs. Murry Galuten, one of the participants, had high praise for the dealer who installed her Lennox air conditioning system.

In the transcript of the proceedings, however, the name of the installer came out Jim Wood. Actually, it develops, the dealer was Jim Moore of Controlled Air Systems, Greenwich, Conn.

Mrs. Galuten related that, because her husband has some knowledge of air conditioning, they searched diligently for a qualified dealer before buying.

"It took a year to locate Jim Moore through Consolidated Edison," she testified, "but he was wonderful."

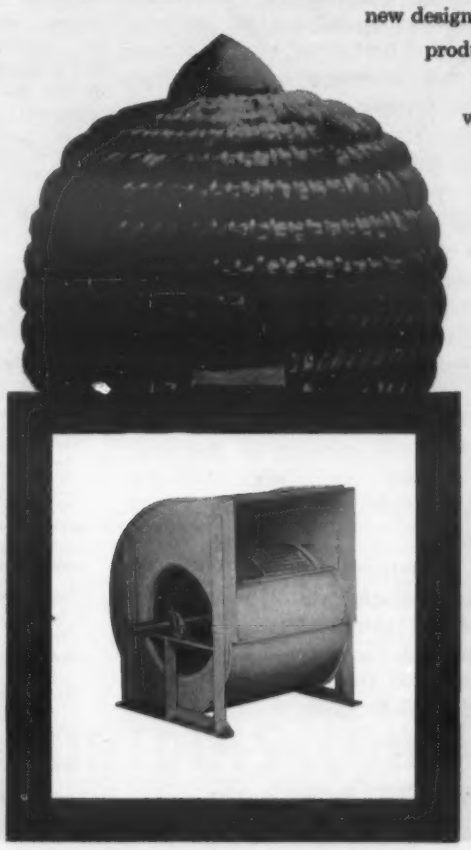
AN ANSWER to the problem of accurately specifying noise control equipment in air conditioning and ventilating systems, new or old, is quickly given in this new and practical Uni-Silencer Selection Chart. Designed and copyrighted by Elof Hanson, Inc., Acoustical Div., 711 Third Ave., New York 17, N. Y., it is free on request. Eight and one half by eleven inches, on plastic-protected card in three colors, the Selection Chart is a practical tool.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

HY FARBER DESIGN

**AM-pak . . . Perfect Package for Air Moving Units*

For evaporative condensers, air handling units and heavier heating equipment, Utility has created AM-pak, an entirely new design priced for high production, combining efficiency with flexibility, strength with perfect dynamic balance. Ranging in diameters from 10 to 36 inches, the rugged blower wheel has 64 specially curved blades, features a conical center disc construction and operates at static pressures up to 6¾" W.G. You deliver greater air-power with less horse-power when your equipment is built with AM-pak.



Scroll shapes and wheel diameters can be matched to your exact needs. Let us send you complete data.

UTILITY FAN CORPORATION

911 East 59th Street, Los Angeles 1. International Division, 141 El Camino Drive, Beverly Hills, California. A division of Utility Appliance Corp.

*Air Moving Package.

They'll Do It Every Time

by

Jimmy Hatlo

WONDERFUL PICNIC YESTERDAY, CHIEF... I HAD THE HONOR OF DANCING WITH YOUR WIFE--SHE CERTAINLY IS A MARVELOUS LADY.. SO GRACIOUS.. SHE WAS TELLING ME ABOUT HER RHODODENDRONS-
PHOOTKISS INVESTED THE WHOLE DAY PLAYING UP TO OLD LADY BIGDOME, AND HE WANTS TO MAKE SURE IT DIDN'T GO TO WASTE...
PHOOTY ALWAYS MAKES IT A POINT TO MEET HIS NIBS COMIN' IN....HE'S GOTTA DO HIS BUTTERIN' UP FROM THE ELEVATOR TO BIGDOME'S DOOR....
HUH? OH, IS THAT SO? YES.. IT WAS A GOOD PICNIC...EVERYBODY SEEMED TO HAVE A GOOD TIME..
BIGDOME WOULDN'T HEAR ABOUT IT FROM THE OL' GAL... THEY AIN'T TALKING...
HE DID EVERYTHING BUT GO IN THE THREE-LEGGED RACE WITH HER...
WATCHING THE OFFICE POLITICIAN DO HIS DAILY APPLE POLISH...
WHAP!
THANX AND A TIP OF THE HATLO HAT TO DICK SMITH, LIMA, OHIO
7-15

How Long, O Lord, How Long?

PRICE-CUTTING, once the hallmark of the room air conditioner business, now has moved into the "applied" (industrial) area of the air conditioning ratrace.

Quotations on the big stuff (centrifugals), have skidded from $125 per ton capacity all the way down to $75 per ton recently. This doesn't make sense.

No innovations in design or production have appeared, to justify this throat-cutting. Apparently one or two manufacturers have decided to "buy business," for reasons best known to themselves.

They can't go on doing this sort of thing forever, of course. In the meantime, false cost yardsticks are being established which will handicap everyone later. Moreover retained profits, with which research toward better products could be financed, can't be accumulated.

When will the air conditioning industry grow up?

Ethics Among Servicemen Can Be Uplifted

SERVICE is a business. It is subject to the same economic laws, and beset by the same dunderhead practices, as manufacturing and selling.

If you don't conduct a service business profitably, the quality of the work you do suffers, and eventually you go broke.

In this connection, we point with pride and approbation to a Code of Ethics recently drawn up by the Refrigeration Service Contractors Association in Australia, to wit:

(a) Foundation of business ethics among competitors and customers is confidence—based upon honest fair dealing, and efficient service. Reward for such honesty is fair profit.

(b) Offering free service or lower than normal prices for service (for the sole purpose of deceiving an unwary consumer) usually is combined with overcharging him in another item to make up for the free service. Secret rebates, premiums, special adjustments, and other allowances unfairly divert trade from a competitor or otherwise injure the business.

(c) The consumer is entitled to full protection in carrying out a guarantee made by a member of the Refrigeration & Air Conditioning Contractor's Association.

(d) Efforts to divert business cheaply from another member of the association are unworthy of a legitimate member contractor. Nevertheless, it is the right of any member contractor to bid on any job that is presented in the normal course of business procedure.

(e) A member contractor shall not knowingly or willfully by any means whatsoever interfere with any contract now in existence between another member contractor and any customer.

(f) It shall be considered unfair for one contractor member to cause any customer to question the character of a competitor, his business integrity, credit standing, or the ability, quality, or reliability of his service. Any such question first should be brought to the attention of the association.

(g) No member of this Refrigeration & Air Conditioning Contractors Association shall hire an employe of another member contractor without first notifying the former employer of his intention and consulting with him in reference thereto.

(h) A member contractor has the obligation and the duty to hire only competent refrigeration and air conditioning mechanics who have sufficient experience to handle the jobs they are expected to perform.

(i) A member contractor shall not accept an order for a sale or for installation, repair, or maintenance of refrigeration and air conditioning equipment from a salesman or any other employe employed by another member contractor.

All we U.S.A. folk can say at this point is: "Bully!" Wish our standards — and laws permitting them — were comparable.

The value of time cannot be realized. It is the most precious thing in the world; the only thing of which it is a virtue to be covetous, and yet it is the one thing of which all are wasteful. Time is so precious that there is never but one moment in the world at once, and that is always taken away before another is given.—*Megiddo Message.*

Don't borrow trouble. Be patient and you'll have some of your own.—GEORGE GOBEL.

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AIR CONDITIONING HEATING & REFRIGERATION NEWS

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F. M. COCKRELL, *Founder*

'The Conscience of the Industry'

Published Every Monday by BUSINESS NEWS PUBLISHING CO., 450 W. Fort St., Detroit 26, Mich. Telephone Woodward 2-0924. Subscription Rates: U. S. and Possessions and Canada: $6.00 per year; 2 years, $9.00; 3 years, $12.00. All other countries: $10 per year. Single copy price, 40 Send remittance with order.

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VOLUME 87, NO. 15, SERIAL NO. 1,585, AUGUST 10, 1959

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—*Charles A. Dana.*

OBJECTIONS TO DISCOMFORT INDEX ARE REFLECTION OF TWENTIETH CENTURY VIEW OF LIFE

Armstrong Cork Co.
Lancaster, Pa.

Editor:

With your Inside Dope Regarding the "Discomfort Index" you possibly will be interested in the editorial comment which appeared in the *Lancaster New Era.*

"The howls set up over the Weather Bureau's use of the phrase 'discomfort index,' and its abandonment of the term, tell a good deal about the kind of life we lead in the mid-20th century.

"By all means, the protesters appear to be saying, let's not acknowledge the existence of anything so unpleasant as discomfort. We may feel it, but it isn't nice to talk about it.

"The complaints fit. This is the age when everything has to be fun, to be easier, softer, pleasanter, milder. Don't walk if you can ride. Don't push something if you can get it self-propelled.

"Just float through life in a cocoon, feeling no pain. If any should by mischance intrude upon your consciousness, call it something else and maybe it will go away."

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

Handy Way to Subscribe

To See the Industry In Action EVERY WEEK

Keep up-to-date on what's going on in your industry. You'll see action weekly in AIR CONDITIONING, HEATING & REFRIGERATION NEWS. Covers latest news and gives you top how-to-do-it reports on residential, commercial, and industrial air conditioning, heating, and refrigeration for contractors, dealers, consulting engineers, distributors, servicemen, and manufacturers. Read the industry's only newspaper every week—you'll profit by it—only $6.00 per year, 52 issues (U.S. and Canada). Foreign: $10 per year.

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August Climatological Evaluation Chart Gives '57, '58 Ratings for 32 Cities

DETROIT — A climatological evaluation chart rating the air conditioning "sales climate" for 32 major U. S. cities in August of 1958 and 1957 indicates that that month was generally "just so-so" both years.

The chart reproduced here is the last of four covering the May-August air conditioning sales season. Like the other three, it was issued by Weather Trends, Inc., a private weather forecasting and weather record-inf organization.

The charts were published by the NEWS with the thought that they would be of value to those in the air conditioning industry who were aiming promotional efforts at individual markets.

Weather Trends' studies placed ratings of 5 (superior), 4 (favorable), 3 (near normal), 2 (unfavorable), and 1 (poor) on the air conditioning sales climate for the 32 cities. For August of both 1958 and 1957, the majority of the cities got "near normal" ratings.

For August of last year, only two cities—Miami and Phoenix —had a "superior" rating and only five a "favorable" rating. At the other end of the scale, only one had "poor" conditions and three "unfavorable" weather. In between, with a rating of "near normal," were 21 cities.

For August of 1957, only one city—Los Angeles—was rated "superior" and only four "favorable. But none had a "poor" rating and only two were considered "unfavorable." The weather was rated "near normal" in 25 of the cities.

●

Climatological Evaluation

City	August 1958	August 1957
Atlanta	3	4
Baltimore	3	3
Birmingham, Ala.	3	3
Boston	3	3
Buffalo	3	3
Chicago	3	3
Cincinnati	3	3
Cleveland	2	2
Dallas	3	3
Denver	4	3
Des Moines	4	4
Detroit	3	3
Houston (U)	4	3
Indianapolis	1	3
Kansas City	3	4
Los Angeles	4	5
Memphis	3	3
Miami (U)	5	3
Minneapolis	3	3
New Orleans (U)	3	3
New York City (U)	3	3
Oklahoma City	3	3
Omaha	3	3
Philadelphia	3	3
Phoenix	5	3
Pittsburgh	2	3
Portland, O. (U)	4	2
Raleigh	3	3
Richmond	3	3
St. Louis	3	4
Washington	3	3
Wichita	2	3

Legend: 5, superior; 4, favorable; 3, near normal; 2, unfavorable; 1, poor.

Note: All "ratings" are related to NORMAL conditions based on long-term Weather Bureau records. Data used are from airport weather stations unless (U) is indicated which refers to "urban" or city station.

Trying to find the right man for a hard-to-fill vacancy—the NEWS' Classified Ads are read by your man.

Place your ad today!

In Chicago

Illinois OKs Lower Gas Rate for Big Apartment Air Conditioning

CHICAGO—The Peoples Gas Light & Coke Co. has obtained permission from the Illinois Commerce Commission to extend gas service for air conditioning in large apartment buildings and to more industrial and commercial establishments in Chicago.

The commission approved a rate of 3.4 cents per therm, including municipal utility tax, for air conditioning service in large apartment buildings of 100 or more units only during the period March 15 to Nov. 15. This rate, Peoples Gas said, compares favorably with any other fuel used for air conditioning purposes.

In order to qualify for this lower rate, a customer must have air conditioning equipment with a capacity of 10 million B.t.u.h. (equivalent of 200 boiler horsepower); all necessary piping and appurtenances for the supply of gas to all of the individual apartments in the building, and gas must be used for cooking in at least 90% of the living units.

The commission also authorized Peoples Gas to furnish interruptible boiler fuel service to additional commercial and industrial customers. This proposal will make gas available to those whose boiler fuel gas consuming capacity may be less than the present minimum of 50 million B.t.u.h., but not less than 25 million, and who use a substantial part of the steam output from the boiler plant for air conditioning.

Peoples Gas said the purpose for these requests is to encourage the use of gas in the operation of air conditioning equipment. This development will be beneficial to the customers, the gas consuming public generally, and to the company by way of increase in valley (warmer months) gas sales, the utility said.

Dunham-Bush Declares Dividends

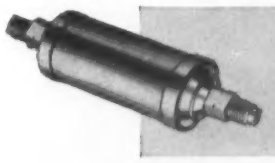
WEST HARTFORD, Conn. — The board of directors of Dunham-Bush, Inc. recently declared the following dividends: Common stock—10 cents per share, payable Sept. 15 to stockholders of record as of Sept. 1, 1959; 5% cumulative preferred stock—$1.25 per share, payable as above.

TRAP-DRI®

now better than ever with new BALANCED BLEND of finest desiccants

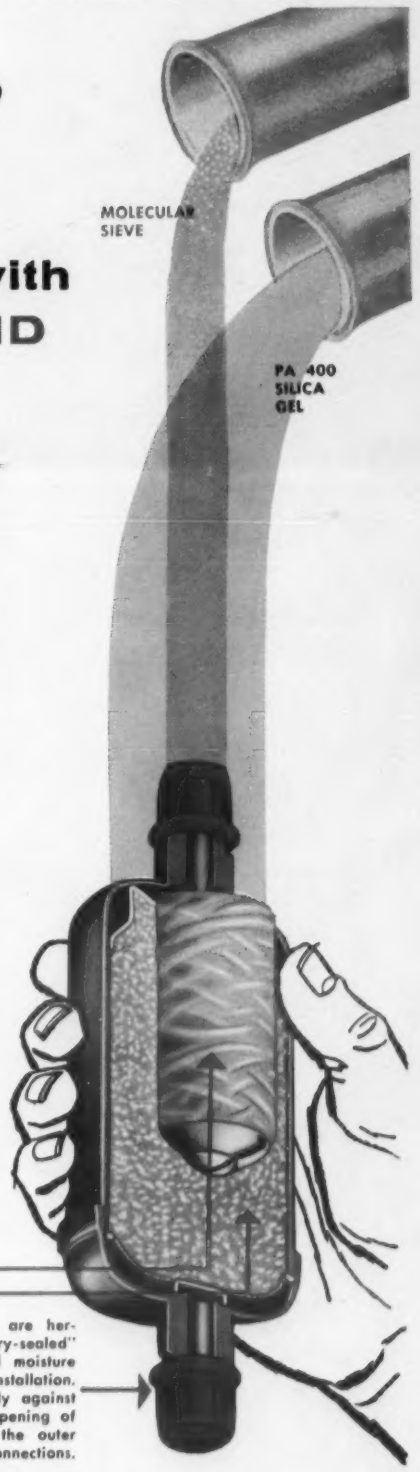
Perfect proportion means perfect protection against corrosive acids . . . moisture . . . dirt
New, improved A-P Model 410 Trap-Dri eliminates moisture and acids completely with its balanced blend of PA 400 silica gel and molecular sieve desiccants. Both hazards are adsorbed physically with no release of any substance to refrigerant circuit. High reserve capacity, low pressure drop, noncorrosive and nondusting characteristics are qualities unmatched by any other desiccants. Trap-Dri is a filter too! Exclusive depth filtration removes all foreign material with no appreciable pressure drop.

Trap-Dri adds years of profitable, trouble-free performance . . . greater guarantee of safety to any refrigeration system. It is available with solder or flare type connections, ⅓ to 7½ ton capacties. Write today for complete data.



ECONOMY MODEL 414 JET-DRI (DRIER) removes and prevents formation of harmful acids that corrode iron, copper, brass and aluminum. Constructed with brass fittings (⅛" S.A.E. male flare connections). Flow in either direction. Silica gel desiccant only.

MODEL 408 TRAP-IT FILTER has many times the filtering and absorbing area of ordinary filter. Three sizes: ¼ or ⅜" fittings on the regular and large sizes and ⅜, ½ or ⅝" on the extra large. S.A.E. male flare connections.



DEPTH FILTRATION heads off all dirt and desiccant. Exclusive cotton bobbin provides depth filtration (not surface) which removes particles of sediment as small as 5 microns.

RIGHT COMBINATION of PA 400 and molecular sieve desiccants completely adsorbs moisture at relatively high temperatures. Besides removing acid-forming moisture, blend also eliminates acid already present in system.

PLASTIC CAPS are hermetically "factory-sealed" to keep out all moisture and dirt before installation. Cap locks tightly against both the end opening of the drier and the outer surface of the connections.

Creative Controls for Industry

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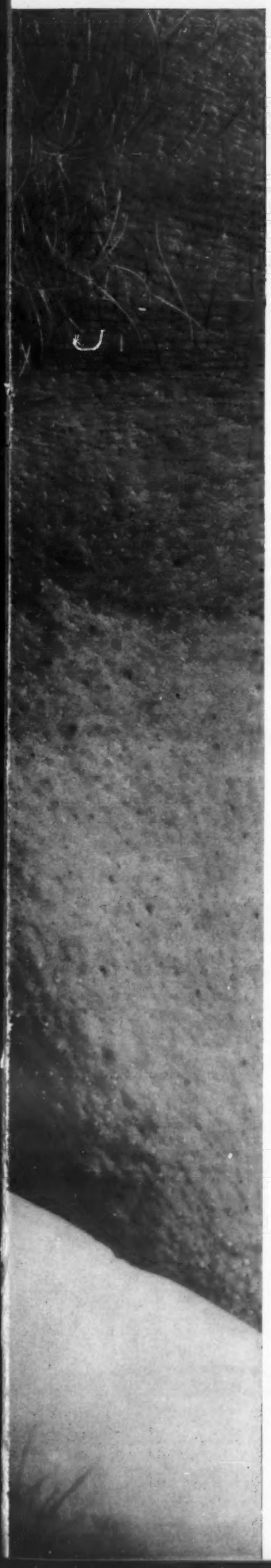


You're hearing all the noise you'll ever hear from the new WESTINGHOUSE AIR-LINE MOTOR!

Brand-New and Extra Quiet—Westinghouse Air-Line Motors for Air Conditioners

. . . AND FANS . . . AND BLOWERS . . . AND UNIT HEATERS . . . AND—YOU NAME IT!

Here's the new Westinghouse 48-frame capacitor-start or shaded-pole motor—the quietest, most fail-proof motor you've ever had the pleasure of using.

We took away the sound by forcing oil between the nylon washer surfaces. Now they ride noiselessly on oil, not noisily on each other! (It's a Westinghouse exclusive.)

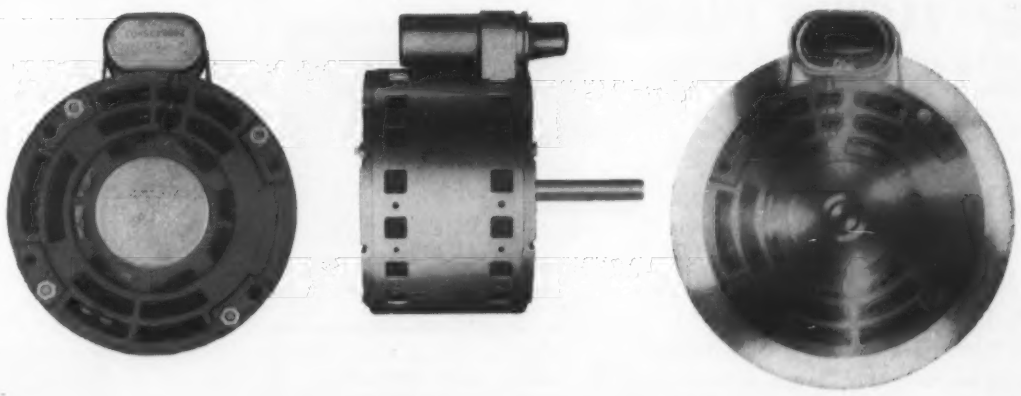
We've eliminated the major source of air conditioner motor failures by soldering and wrapping all electrical connections with multiple windings of insulating tape.

And, of course, the entire motor is designed for superior moisture resistance—with Mylar* insulation, a corrosion-resistant shaft, and double-dipped motor windings.

There's more! . . . perfectly flat endbells and recessed bolts to give you the shortest motor ever; Permawick lubricating system designed for a minimum of five years' lubrication without reoiling; either plug-in terminals or leads, depending on your requirements; and about a dozen other features that your local Westinghouse sales representative will be proud to show you.

Let him demonstrate the new Air-Line motors for you right away. Or write to: Westinghouse Electric Corporation, Mr. C. D. Jakes, Industrial Motor Department, Lima, Ohio. J-03022

*DuPont Registered Trade-Mark



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WHAT . . WHEN . . WHERE

—A Guide to Coming Events of Interest

Midwest Association—Refrigeration Service Engineers Society Educational Conference
Oct. 1-3, Lafayette hotel, Little Rock, Ark.

American Gas Association Convention
Oct. 5-7, Conrad Hilton hotel, Chicago.

National Frozen Food Distributors Association Meeting
Oct. 25-28, Sherman hotel, Chicago.

Refrigeration Service Engineers Society Convention
Oct. 30-Nov. 2, Atlantic City, N. J.

Air-Conditioning & Refrigeration Institute Membership Meeting
Nov. 1, Haddon Hall, Atlantic City, N. J.

Air-Conditioning & Refrigeration Wholesalers Meeting
Nov. 1-2, Atlantic City, N. J.

National Commercial Refrigerator Sales Association Convention
Nov. 2-4, Traymore hotel, Atlantic City, N. J.

11th Exposition of the Air-Conditioning & Refrigeration Industry
Nov. 2-5, Convention Hall, Atlantic City, N. J.

National Hotel Exposition
Nov. 2-6, Coliseum, New York City.

National Electrical Manufacturers Association Meeting
Nov. 9-13, Traymore hotel, Atlantic City, N. J.

The Institute of Boiler & Radiator Manufacturers Meeting
Week of Nov. 9, Seaview Country Club, Absecon, N. J.

National Warm Air Heating & Air Conditioning Association Meeting and Convention
Dec. 1-4, Chase Park-Plaza hotel, St. Louis.

Edwards Offers Baseboard Heating Sales Aid

POMPTON PLAINS, N. J.—Edwards Engineering Corp., 101 Alexander Ave. here, announced publication of a four-color promotional sheet designed to help dealers, contractors, and builders sell the consumer on the advantages of Edwards zone control hot water baseboard heating.

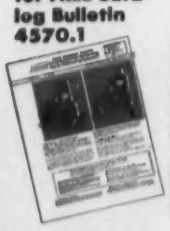
Quantities of the 17 by 22-in. sheet are now available, without charge, to anyone interested in promoting the Edwards system, according to the manufacturer.

A Cleaner, Drier System, AND Quick, Profitable Service . . .

Kinney® FEATURES TWO NEW PORTABLE HIGH VACUUM PUMPS

KINNEY KC-3R and KC-8R Portable High Vacuum Pumps are proving important money-makers for servicing Freon Refrigeration and Air Conditioning Systems up to 10 ton size. These gas-ballasted KINNEY Pumps leak test, evacuate and dehydrate the system *quickly*. They're built for rugged day-in-and-day-out service and, being portable, are always ready . . . in the shop or out on the job. Get the advantages of these KINNEY Pumps for your service operations — write for prices today.

Write for FREE Catalog Bulletin 4570.1



KINNEY MFG. DIVISION
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Please send me, without obligation, Bulletin 4570.1 with full information on KC-3R and KC-8R Pumps.

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Company_____

Address_____

City_____ Zone____ State_____

Appointed

Managing sales for Imperial Brass Mfg. Co. in the southern, western, and central divisions, respectively, are: H. W. Pearson, above; J. A. Norris, above right, and T. A. Fulte, right.

Buffalo Forge Reports 10% Rise In Orders

BUFFALO — Buffalo Forge Co., in the first six months of this year, experienced about a 10% increase in orders compared with the same period last year, Henry W. Wendt, chairman of the board, reported.

He added that the present backlog is about the same as a year ago and that orders are running ahead of shipments. He noted that the company has a four-to-five-month supply of steel and will not be affected by the steel strike unless it extends beyond that period.

Wendt reported net profit for the quarter ended May 31 was $247,719 or 38 cents a share, compared with $325,117 or 50 cents a share for the second quarter of the 1958 fiscal year. Earnings for the period were about 25% greater than the $195,296, or 30 cents a share, earned in the first quarter of this year.

"We expect gains in the shipments and profits through the remainder of the fiscal year and hope to equal the 1958 volume, although we will not reach the level of sales attained in 1957, our record year," Wendt said.

DOES YOUR APPLIANCE CARRY THIS

Seal of Quality?

★ The motor used in this equipment is protected against overloads, low voltage, over-voltage with a Mighty Mite Thermal Protector ★

MECHANICAL INDUSTRIES PRODUCTION CO.
223 Ash Street • Akron, Ohio

SEND FOR REPRINTS
"ELECTRICAL CHARACTERISTICS OF PACKAGED AIR CONDITIONING UNITS."
Only 25¢ each.
For your copy, clip this ad and mail with name and address to: Air Conditioning, Heating & Refrigeration News. 450 W. Fort, Detroit 26, Mich.

McQuay Gross Sales Hit All-Time High

MINNEAPOLIS—Gross sales of McQuay, Inc. reached a new high of $9,042,000 for the first six months of 1959, compared with $8,010,000 in the first half of 1958, and $13,453,000 for the entire year, it was announced by B. E. James, president.

He also announced that construction is being started immediately on new additions to both the company's plants in Faribault, Minn. and Grenada, Miss.

The Faribault plant addition consists of 40,000 sq. ft. at a cost of $250,000, according to J. R. Resch, vice president in charge of the Faribault plant, and is the third stage of an expansion program announced by the company in 1957.

The first and second steps have been completed and this newest addition will mean a total expenditure of $600,000 in Faribault alone, Resch pointed out.

A fourth expansion amounting to another $250,000 is planned for 1961, Resch said.

The addition to the Grenada, Miss. plant consists of 60,000 sq. ft. and will cost in excess of $250,000.

"McQuay employs approximately 275 persons in Faribault, with an annual payroll of about $1,000,000," it was named. "Employes in Grenada number about 325, and the payroll there is about $1,250,000 annually."

James said the plant additions "have been badly needed for some time. Despite the fact that our expansion program has gone forward exactly on schedule, we have been unable to maintain our production at the same pace as our sales."

NOW

an entirely new concept in water cooler design!

Completely self-contained, refrigerated electric wall fountain. Capacity: 13 g. p. h.

TEMPRITE

. . . the "quality line" presents

WALL-TEMP

Model WT-13

With completely new functional beauty and great new flexibility—wall mounted model WT-13, by Temprite, presents an entirely new concept in the design engineering of drinking water coolers. Designed for maximum architectural efficiency wherever self-contained coolers are specified—Model WT-13 is in complete harmony with today's building trends.

1 Mounts flush to wall.
2 Fully concealed plumbing.
3 Ample head room.
4 Floor cleanliness; foot freedom.
5 Extra deep basin.
6 Mounts at child's height if desired.

TEMPRITE PRODUCTS CORPORATION
P.O. Box 72-A, E. Maple Rd., Birmingham, Mich.

Send me literature on the new Temprite "WALL-TEMP" Model WT-13 self-contained water-coolers.

Company_____

Name_____

Address_____

City_____ Zone____ State_____

Gray Heads Mathes Distributor, Dealer Training

FORT WORTH, Texas — Appointment of Marvin J. Gray to head up The Mathes Co.'s newly-designated field engineering and training department has been announced by Robert B. Starnes, vice president-sales manager.

Carrying the title of national manager, Gray will supervise the work of a group of field engineers, each of whom is assigned to serve a region covering several states.

The primary responsibility of Gray and his department is distributor and dealer education. A series of training schools, commencing immediately and scheduled throughout the balance of this year, will be conducted at distributors' headquarters

Using a newly-improved manual plus such training aids as projectors with color slides of equipment, Gray and his regional field engineers will conduct courses covering all phases of job engineering, application, and installation of Mathes residential - commercial - industrial equipment, Starnes said. He added that service and trouble-shooting will be covered at length.

Gray's experience includes 20 years in the refrigeration, air conditioning, and heating fields. His most recent assignment was supervising the installation of 1,500 Mathes split-system heat pumps in the Capehart project at Seymour Johnson Air Force Base, Goldsboro, N. C.

Hupp Earnings for First Half Exceed Entire Year 1958

CLEVELAND—Net earnings of Hupp Corp. in the first half of 1959 exceeded those for the entire year 1958 and were the highest of any like six-month period in the company's modern history, Don H. Gearheart, president, announced recently.

Hupp is a diversified manufacturer engaged primarily in air conditioning, refrigeration, and heating (Gibson, Perfection, and Typhoon). It also manufactures aviation, automotive, hydraulic, and marine products.

"Improved manufacturing and marketing operations, increased sales volume, and firm air conditioning and appliance markets" were primary reasons for the 1959 record, according to Gearheart. He noted that each of the corporation's seven divisions is operating profitably.

Net sales for the six months ended June 30 amounted to $37,697,000, compared with sales of $30,582,000 in the first half of 1958.

Net income after taxes amounted to $1,027,000, exceeding the $1,005,000 earned in the full year of 1958.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

G-E Announces 5-Ton, Split-System Heat Pump

NEWEST member of the General Electric central air conditioner line is the WTA608 5-ton Weathertron split-system heat pump. The outdoor unit is housed in an attractive, weatherized cabinet, and like other members of the Weathertron line, both heats and cools without fuel or water.

TYLER, Texas—C. B. Ramsdell, marketing manager for General Electric Co.'s central air conditioners, has announced the introduction of a new 5-ton, split-system "Weathertron" heat pump.

This member of the Weathertron line includes a weatherized outdoor remote unit, model WTA60B, and an indoor air handling unit, model WTE60AC. Like other members of the line, it is U.L. approved and rated in accordance with the new ARI Standards, it was stated.

Heart of the outdoor section is the G-E high speed compressor (3,450 r.p.m.).

Features include belt-driven, variable-speed, ball bearing blowers, "which allow easy airflow selection and quiet operation, and are permanently lubricated; and double driers, permitting constant drying of refrigerant whether the unit is on heating or cooling," the announcement said.

The fan is isolated from the compressor by a baffle, "permitting fast, easy servicing without time-consuming removal and replacement of exterior panels," it was stated. "This feature also cuts airborne noise to a minimum."

The two-tone grey enameled vertical air handler is designed to easily replace "conventional" heating systems, according to G-E. It utilizes a 115/230-volt blower motor "for ease of application," and the variable-speed, permanently-lubricated, ball-bearing blower is cushion mounted and belt-driven "to assure quietness and ease of airflow adjustments."

Although furnished in upflow form, the air handler can easily be converted to downflow operation without the need for "kits," it was stated. It can also be used in "cooling only" applications, as well as heat pump use.

The condensing unit is supplied with a holding charge of R-22, and is factory-equipped with service valves and sight glass.

Ramsdell also noted that supplementary electric resistance heaters are available, and that a sub-base for mounting the heaters in downflow applications, and a horizontal air handler are in the works, and will be available in the near future.

Aeroquip Votes Dividend

JACKSON, Mich.—The board of directors of Aeroquip Corp. voted a regular quarterly dividend of 10 cents on the 1,157,094 common shares presently outstanding, payable Sept. 1 to stockholders of record Aug. 14.

UCON IKE

Brings You a New, Friendly Refrigerant Service

Ucon Ike is the symbol of the *real* difference between refrigerants—*service!* He's a friendly fellow—Ucon Ike. A fresh new idea in service. The kind you get with Ucon Brand Refrigerants—newest in the industry.

Only Ucon Brand Refrigerants, for example, are backed by a written policy that makes doing business easier for wholesalers and contractors. It's a policy that works for you through friendly, competent, energetic people who know and care about your problems, and pledge to distribute only through wholesalers of air conditioning and refrigeration products.

Look for Ucon Ike when you want the best in service . . . and top-quality refrigerants.

Ucon Refrigerants: 5 top-quality grades; full range of unit sizes; color-coded at the top; personalized service.

Ucon Brand Refrigerants are manufactured by
UNION CARBIDE CHEMICALS COMPANY—Division of Union Carbide Corporation
30 East 42nd St., New York 17, N. Y.
Exclusive Sales Agent to Air Conditioning and Refrigeration Wholesalers
ANSUL CHEMICAL COMPANY, Marinette, Wisconsin

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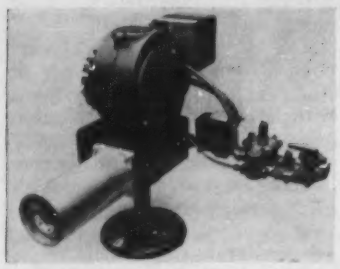
UNION CARBIDE product — Ucon BRAND refrigerants — exclusive sales agent ANSUL

Fan-Type Gas Burner Is Piped, Wired



● The "Incino-Flame," a packaged fan-type gas burner, completely piped and wired and ready to install, has been introduced by Bryant Industrial Products Corp., Dept. AH&RN, 17700 Miles Ave., Cleveland 28.

The unit is used on air heaters, furnaces, incinerators, ovens, and miscellaneous heating applications. It features a nozzle-mix burner that does not require a refractory combustion tunnel—and a blast pilot "that will not blow out," the manufacturer said.

The Incino-Flame is available in two capacity ranges, each providing a minimum of 50,000 and maximums of 450,000 or 600,000 B.t.u.h., according to the announcement.

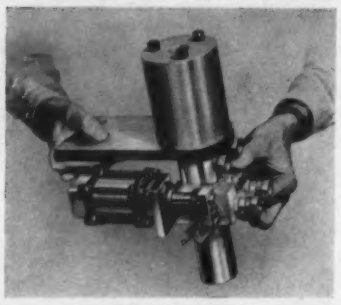
G-Clamps Hold Pipe, Conduit Up to 4 In.

● Grinnell Co., Inc., Dept. AH&RN, 260 West Exchange St., Providence 1, R. I., announced that it is producing new malleable iron "G" clamps which have many uses where conduit and pipe up to 4 in. in size need to be supported directly under structural steel.

The maximum recommended loads are from 210 to 450 lbs., for the smallest to the largest sizes, and maximum temperature is 450° F., with a safety factor of 5.

The saddle on the clamp's lower jaw swivels, permitting suspension of the pipe or conduit at any angle in a plane parallel to the face of the supporting flange.

Head Mixes, Dispenses Polyurethane Foams



● Development of a mixing head for valving, mixing, and dispensing polyurethane foams has been announced by The Martin Sweets Co., Inc., Dept. AH&RN, 114 S. First St., Louisville 2, Ky.

A unique rod-type valve, having teflon seals, controls two or three material streams with sharp cut-off for "on-off" operation, the company said. Designed for continuous recirculation of chemical components when mixing is not taking place, this principle allows for pressure balance of the "mix" and "recirculate" cycles, producing accurately proportioned components throughout the entire foaming cycle, it was stated. Mixing chamber is self-cleaning for production line molding applications.

The standard model mixing head produces quality foams of the rigid, semi-rigid, and flexible types using formulations of polyesters, polyethers, or castor oils, with throughputs up to 50 lbs. per minute, the firm stated.

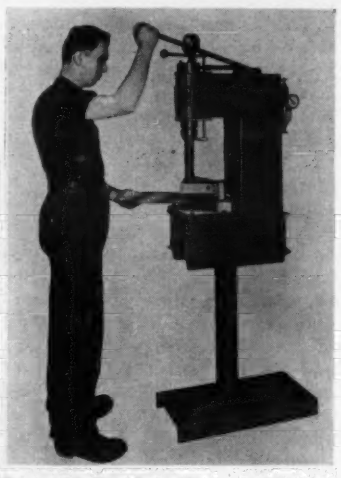
Graph Line Recorder Is Transistorized

● A transistorized electric graph line recorder is being offered by Electric Auto-Lite Co., Dept. AH&RN, Toledo 1.

Working with conventional stylus actuating mechanisms, the Auto-Lite recorder employs a transpistor oscillator circuit applicable to all sensing devices (temperature, pressure, volume, etc.) and provides a permanent, inkless record, according to the company.

In the self-contained model, two mercury batteries energize a transistor oscillator to accomplish electric writing on carbon-backed "Teledeltos" paper. Where line voltages are available the mercury batteries are replaced by an a.c. 115-volt power supply and the chart is driven electrically rather than mechanically.

"The indicating unit is completely dependable in an ambient temperature range of -40° F. to 160° F. and, when used as a temperature recorder, has an indicating range of -40° F. to 550° F.," the company said. "The recorder accommodates all standard charts and functions equally well as a portable, wall, or panel unit."



Bench Arbor Press Has Fast Ram Approach

● Featuring an air-actuated, fast ram approach, KRW's new 10-ton hand-operated hydraulic bench arbor press is equipped for speed and ease of operation, according to K. R. Wilson, Inc., Dept. AH&RN, Arcade, N. Y.

Adaptable to a wide range of bending, straightening, forming, and punching applications, it can be operated at more than 20 strokes per minute, the manufacturer said.

"When the hand operating lever is raised, the ram comes down to meet the work in a fraction of a second," it was pointed out. "When the hand lever is lowered, hydraulic pressure is applied to the work. Once the job is done, the ram is quickly spring-returned to top position by simply flipping the pressure release knob above the pumping unit."

Portable Tool Flares Tube Ends In 4 Secs.

● A new portable production tube flaring tool—reportedly capable of flaring tube ends in less than four seconds—is being introduced by The Imperial Brass Mfg. Co., Dept. AH&RN, 6800 West Howard St., Chicago 48.

This addition to Imperial's complete line of tubing tools offers users many of the advantages of semi-automatic operation, yet it is relatively inexpensive, the company said. It can be used in the field or in any location where a bench or vise is available.

The tool is available with either a cone for making 45° flares (Part No. 555-F) or with a cone for making 37° flares (Part No. 557-F). The tool will produce end flares in six different sizes of soft copper, aluminum, and brass tubing up to ⅝ in. outside diameter. It "features a fast cam-levered action that permits an operator to flare hundreds of tube ends continuously with a minimum of fatigue," the manufacturer stated.

BEFORE YOU BUY, THINK:

Will fungus attack your cooling tower 2 years from now?

Not if it's a Halstead & Mitchell cooling tower with a 20-Year Guarantee

The specially treated wood decking in H&M towers resists rotting, fungus attack and algae which accumulates and obstructs air flow in most other towers. Performance remains "like new" in H&M cooling towers year after year.

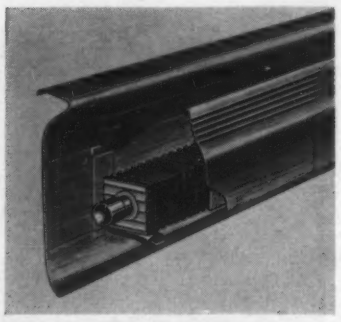
Only Halstead & Mitchell offers a 20-Year Guarantee on the wetted deck against failure due to rotting or fungus attack.

Other H&M features for unusually low maintenance include permanently sealed fan bearings, and a heavy gauge steel cabinet protected against corrosion by three plastic coats applied *after assembly*. Be sure. Ask your local wholesaler for H & M towers, or write to Halstead & Mitchell, Bessemer Building, Pittsburgh 22, Pa.

H & M COOLING TOWER WITH PRESSURE TREATED DECKING

HM Halstead & Mitchell

Water-Cooled Condensers · Cooling Towers · Air-Cooled Condensers · Finned Coil Products



Cover Simulates Wood Grain Baseboard

● Availability of a simulated wood-grain baseboard "Acousti-Cover" for use in wood-paneled living rooms, dens, and recreation rooms has been announced by Edwards Engineering Corp., Dept. AH&RN, 101 Alexander Ave., Pompton Plains, N. J., manufacturer of the "Zone-A-Matic" zone control baseboard hot water heating system.

Acousti-Covers are already available in copper-tone, chrome, and flat white. All Acousti-Covers are available in factory-cut, unbroken lengths from 2 to 20 ft.

Edwards baseboard elements come in various tube sizes with different industry-approved ratings: ½ in. and ¾ in. nominal tube sizes plus high-capacity units, according to the announcement.

Locking Feature Marks No-Bolt Pipe Hanger

● A new "Speedi" no-bolt pipe hanger has been introduced by Tomic Sales & Engineering Corp., Dept. AH&RN, 20000 Sherwood, Detroit 34.

Designated No. 70, the hanger will accommodate ½ in. and ¾ in. EMT, ½ in. rigid, ½ in. flexible steel conduit as well as aluminum, plastic, and liquid-tite raceways.

Speedi no-bolt pipe hanger is claimed to be a unique one-piece unit that's easy to install. It boasts an exclusive locking feature and exceptional versatility.

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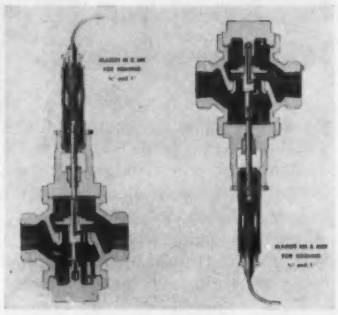
8-10-59

Air Conditioning, Heating & Refrigeration News
450 W. Fort Street
Detroit 26, Michigan

Temperature Regulator Has Balancing Bellows



● A newly-designed temperature regulator for steam and water service has been introduced by Leslie Co., Dept. AH&RN, 102 Delafield Ave., Lyndhurst, N. J.

Designated as Class M (direct acting) for heating service, and Class MR (reverse acting) for cooling service, it is manufactured in ¾ in. and 1 in. body sizes in both cast iron and bronze with screwed ends.

The new design includes a balancing bellows which permits smooth functioning at inlet pressures and pressure drops up to 100 p.s.i., the company said. Other features include a self-aligning, single-seated, tight closing main valve which is guided throughout its entire stroke.

Variations in temperature are sensed by a liquid filled thermo-element. A large variety of thermo-elements with various ranges, spans, and bulb materials are available. Elements can all be interchanged in the field quickly, the company stated. Valve action can be revised from heating to cooling (or cooling to heating) by interchanging the bottom cap and bonnet assembly, it was pointed out.

Adds Concrete Saws, Blades

● A full line of masonry, concrete, and stone saws and blades has been added to the masonry drilling equipment of Wheel Trueing Tool Co., Dept. AH&RN, 3200 W. Davison, Detroit 38.

Metalene Concentrate Cleans Coils, Filters

● "Metalene," a newly-developed liquid concentrate, "cleans heat transfer coils and permanent filters; restores cooling capacity," according to Lester Laboratories, Inc., Dept. AH&RN, P. O. Box 4897, Atlanta 2.

"Metalene is a blend of synthetic penetrants," the company explained, "when diluted with water it provides a safe, odorless, powerful solution for cleaning cooling coil exteriors, permanent filters, and blower fans.

"Just spray Metalene on and flush off with a garden hose. Time required to clean a very large coil bank: 15 minutes.

To clean 20 in. by 24 in. filters: 2 to 3 minutes.

"The product is non-toxic, non-flammable, non-corrosive. A light film of Metalene applied after cleaning will inhibit rust. It is harmless to paint, easily cleans access doors and packaged units without damage."

Metalene is also used as an adhesive to treat permanent type filters, according to the manufacturer.

Want More Details?

ADDITIONAL details on products that are described on these pages may be obtained by writing the manufacturer at the address given in each What's New story.

Tell him: "AH&RN sent me!"

for heavy duty—
PLENTY TOUGH

Model HA5CA
½ hp.

Model HA3CA
⅓ hp.

for package units—
SMALL ENOUGH

***all new* Lehigh hermetic condensing units**

Any size—1/3 to 2 HP, for any medium and low temperature application.
Air, Air-Water and Water-Cooled Models.

Now you can have all the cost advantages of a completely sealed motor compressor with the operating advantages of remote installations. Lehigh's new hermetic condensing units are engineered to make it all possible. These tough, yet compact units are already proving themselves in a wide variety of applications.

Open Type Condensing Units, too—and rated the best quality buy for your most rugged applications. Compare their capacity, then compare the price.

Name Your Need—there's a new Lehigh Condensing Unit or Compressor to fit it. Write for literature today.

Send for new 4-page Catalog Sheet.

Ask us about our new line of liquid receivers—from 5" to 12" diameter —for wholesalers and original equipment manufacturers.

LEHIGH

LEHIGH MANUFACTURING COMPANY, Division of Lehigh, Inc., Easton, Pa.
Manufacturers of Hermetic and Open Type Condensing Units, Compressors and Liquid Receivers.

For the Record

Chief Engineer at Carrier Expresses Alarm at Higher Utilization Voltages

At a recent off-the-record forum, industry engineers discussed the implications to them of the trend toward higher utilization voltages.

Several expressed the desire to place their opinions on the record. The NEWS here publishes a letter from one of the first to do so.

* * *

Carrier Corp.
Syracuse 1, N. Y.

Editor:

The growing use of the 277/480-volt distribution system (which provides utilization voltages on the order of 265/460 volts) has alarming implications to this industry. This network system is becoming popular in large buildings in order to reduce the wire size and starting equipment for fluorescent lighting.

As this usage grows, manufacturers are starting to receive requests for room air conditioners and other products designed for 265 volts.

Making such equipment available has disturbing implications not only to manufacturers but to distributors, dealers, jobbers, and servicemen as well.

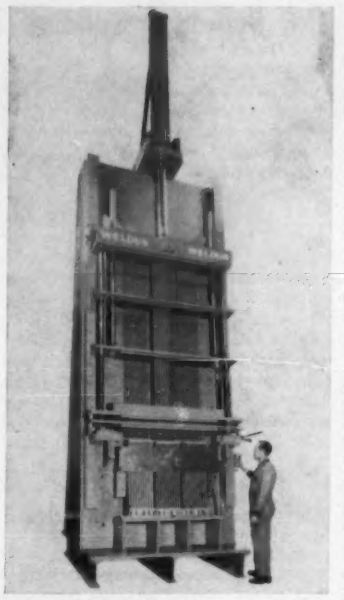
It's bad enough to have to provide compressors, motors, starting equipment, and other electrical accessories for both 208 and 230 volts but if this trend persists, we will have to add a third voltage further compounding our inventory and our problems.

Recognizing the advantage of a high distribution voltage for locations with high lighting intensity, an alternate proposal has been made that such systems be designed for 240/416-volt distribution.

While this would still mean new requirements and electrical spacing because the system would have 230 volts to ground rather than 115 as at present, it would still represent the lesser of two evils and in a short time there would be only one standard voltage in this range instead of three as mentioned above, we hope.

It has occurred to me that your readers might wish to consider the implication of this move and perhaps, those that feel strongly about it would care to express their opinions to the Edison Electrical Institute or to the National Electrical Manufacturers Association.

WILLIAM L. MCGRATH
Chief Engineer
Unitary Equipment Div.



Tube Expander

WELDUN Tool & Engineering Co., builder of special fin tooling for condensers and evaporators, has recently completed this giant, 26-ft. tall, mechanical tube expanding machine, one of the largest vertical machines of its kind ever built with a push action. (It was designed and built for Perfex Corp., Milwaukee, as part of its extensive expansion program in the condenser, evaporator, and heating division.) In one stroke, this machine can expand 200 hairpin type tubes, set the distance between end plates, and provide a flared tube end to accept return bends. In addition to expanding equipment, Weldun also builds fin dies, feeds, stackers, and accumulators.

Plant Plans Cooling

HICKORY, N. C.—According to Leslie Moody, general manager, Hyalyn Porcelain, Inc. will construct a 3,600-sq. ft. addition to its plant for the manufacture of new lines. Moody said the space will be air conditioned, with automatic heat control.

U. S. Court Reviewing Evis Appeal from FTC False Claims Decision

CHICAGO—A U. S. Court of Appeals is now reviewing an appeal by Evis Mfg. Co. from a decision of the Federal Trade Commission in which the FTC ordered Evis to "stop falsely claiming" that the company's water conditioner has any beneficial effect on water.

Evis' appeal is the latest move in the San Francisco firm's five-year battle with the FTC. The agency issued a complaint against Evis in 1954. Since then, the hearing examiner twice ordered the complaint dismissed for failure of proof.

However, the FTC ruled against Evis in its final decision issued last spring. The commission held that the scientific evidence and testimony in support of the charges clearly outweigh the testimony given by the company's user witnesses.

In addition to appealing the FTC ruling, Evis recently issued a three-page press release criticizing the agency. A short time later, C. W. O'Neil, Evis president, labeled a favorable court decision in Denmark as a "strong parallel" to the company's fight with the FTC.

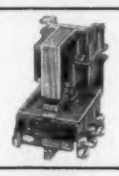
In the Danish case, he said, the high court ruled against two civil engineers for publishing highly critical statements about the Evis water conditioner in advertisements which appeared there.

McQuay Catalog

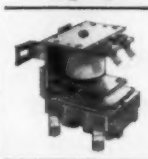
MINNEAPOLIS—A new catalog (number 405) of Type "X" direct expansion coils is available from McQuay, Inc., Minneapolis 13, Minn.

THIS
COMPLETE CONTROL FAMILY
is especially engineered for the air conditioning industry by...
RBM

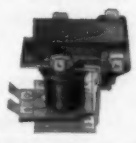
Type C—30, 40, 50 amp.
2-3-4 Pole 30 amp.—600 volts. 2-3-4 pole 40 amp.—230 volts. 2 pole 50 amp.—230 volts. Same mounting holes and coils for all ratings and pole forms.



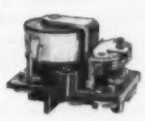
Type S-30—40 amp.
Low cost. Small size. Exceed rigid requirements of industry's largest users.



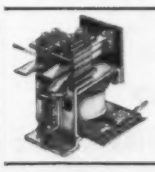
Type 80 Controller
Specific design for nominal 3 HP or 3-ton single phase compressors.



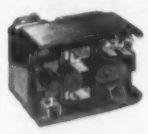
Type 75
Low cost power appliance relay. Dependably handles up to 6000 W. at 240 V, resistive load per pole or compressors 18a running 90a locked rotor at 250 volts.



Series 129000 Shunt Type Relay—SPNO, SPNC or NO-NC
Large double break contacts—Relay enclosed. Coils for standard commercial voltages. Other coils available for special application. For heater, fan control, general circuit switching, etc.



General Purpose Relay
98000 Series AC or DC. Permits engineering short cuts lowering your "finished product" cost.



Series 128000 Potential Starting Relays
For starting single phase capacitor start compressors.

When RBM specially engineered its first air conditioning control, it quickly recognized the industry need for not just one . . . but for a *complete family*. So RBM has done the job. Now there is a single source for *all* air conditioning controls . . . each one meticulously engineered for its application. What's *your* requirement? See RBM.

Consult your local RBM Product Application Engineer or Write for Bulletins 1030A, C-8, 1010A, 1060 and C-10.

RBM CONTROLS DIVISION
ESSEX WIRE CORPORATION
Logansport, Indiana

FACTORIES:
Peru, North Manchester and Logansport, Indiana

REMCO
MOLECULAR SIEVE FILTER-DRIERS IN
1/2 thru 40 tons

Only Remco offers so wide a selection of sizes and types

Fast-acting Molecular Sieves keep system moisture concentration to 10 ppm or lower even at 140°F, and hold acid to far below dangerous corrosion limits. Massive depth filter removes all scale, sludge and carbon as small as 10 microns. Remco Filter-Driers work equally well in the hot machine compartment or the refrigerated space. U/L Approved, working pressure is 500 psi; minimum bursting pressure, 2500 psi.

Replaceable Cartridge Type

Adapter Type with moisture-liquid-indicator adapter fitting

SEALED and REPLACEABLE CARTRIDGE TYPE Filter-Driers are available in ½ thru 40 tons, with ¼" thru 1⅜" flare or sweat connections.

ADAPTER TYPE Filter-Driers, ½ thru 12 tons, connect easily to Remco adapter fittings which are installed permanently in line. Adapter fittings have ¼" thru ⅝" flare or sweat connections; available with integral liquid-indicator or moisture-liquid-indicator.

All Remco Molecular Sieve Filter-Driers and adapter fittings have full refrigerant flow. Ask for them at your local refrigeration wholesaler's, or write for Bulletin MS-1. Remco, Inc., Zelienople, Pa.

REMCO

REMCO REFRIGERATION COMPONENTS: FILTER-DRIERS & ADAPTER FITTINGS • CHECK VALVES • MOISTURE & LIQUID INDICATORS RECEIVER-DRIERS • SAFETY DEVICES • FROST-TITE FLARE NUTS

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SELF-CONTAINED CONDAIRE
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No matter what type heating system . . . or even if there is none . . . you can rely on WILLIAMSON Air Conditioning to solve your cooling problem and increase profits. Choose from 8 different types, easy to install anywhere . . . thru wall or transom, in basement, crawl space or attic, on the roof, entirely inside or outside . . . with or without ducts.

2, 3, 4, 5, 7½ & 10 ton air cooled units
Write for complete information today!
THE WILLIAMSON COMPANY
3320 Madison Rd. Cincinnati 9, Ohio

TECHNICAL CENTER

By Frank J. Versagi, Technical Editor

Instruments In Service Work (9)

Combustion Testing Equipment

Combustion testing equipment is most obviously applicable to heating work—where knowledge of flue gas composition and burner efficiency is a must. Perhaps not so obvious are refrigeration applications for instruments which indicate the presence and/or quantity of carbon monoxide, carbon dioxide, soot.

In supermarkets, for example, meat discoloration is a frequent problem. First reaction of the market owner is to blame the display case and poor refrigeration. Yet, many times meat discoloration has been traced to flue gas. For one reason or another, as negative pressure in the building or improper burner adjustment, carbon monoxide reaches the meat, reacting chemically and causing discoloration.

Instruments like those in Fig. 13 make it possible rapidly to determine where unwanted contaminants are present in a flue gas or atmosphere, or to check burners for proper adjustment.

In the center is a carbon **dioxide** indicator. Flue gas is sampled, flows through an absorbing liquid which indicates the per cent CO_2 within 0.5%. The entire operation takes only a minute or so, and the absorbing fluid can be used for 300 determinations before being replaced.

The smoke tester at left contains a test disc which shows the smokiness of the flame when samples of the combustion gases are drawn through the tester. The test disc is compared with a color chart indicating several degrees of smokiness. The unit is supplied with test paper for 500 tests and an Oil Burner Smoke Scale.

Existence of carbon **monoxide** in flue gas or room atmosphere can be detected with the detector at right. CO is indicated by a brown stain on the test chemical. A gas sampling assembly like that used on the CO_2 tester (center) is required with the detector.

Those who have frequent and repeated occasion to run complete combustion analyses will find specially unitized instruments which allow determination of several variables at once—one such instrument allows the determination of carbon dioxide, temperature, and draft in only a few seconds.

Typical suppliers of combustion testing equipment: Bacharach Industrial Instruments Co., 200 N. Braddock Ave., Pittsburgh 8, Pa.; Victory Engineering Corp., 500 Springfield Rd., Union, N. J.

NEXT: Humidity Measurements.

●

INSTRUMENTS FOR SERVICEMEN: YES or NO?

Your "Instruments for the Serviceman? Yes—No" is really priceless (Page 14, July 27). I don't wonder that B.T., service manager, specified "Company Name Withheld." If he is right you have wasted a lot of time and space in the NEWS writing and publishing Technical Center. Likewise, I am wasting time and traveling expenses.

I am wondering if the serviceman mentioned uses the hammer or the screwdriver to locate an open motor winding or one that is shorted. I'd also like to know the technique of using either to locate a capacitor with a low microfarad rating.

I believe B.T. should have one of - - - (analyzing instruments.) I am enclosing an envelope which contains complete information on it and a list of the companies which already have bought them. I am requesting you forward this envelope to our friend B.T.

Tom Pendergast, vice president
Warranty Service Co.
St. Louis, Mo.

Plastics Parley Set for Oct. 13-14 In Los Angeles

STAMFORD, Conn. — "Progress In Plastics Engineering" will be the general theme of a technical conference planned for Oct. 13 and 14 in Los Angeles by the Southern California Section of the Society of Plastics Engineers.

The two-day meeting, called a NATEC (National Technical Conference), will be held at the Ambassador hotel and is expected to attract engineers from all parts of the United States.

Papers will cover plastics technology in a wide variety of fields, including piping and cryogenics (extreme low temperatures).

Allied In New Move

MINNEAPOLIS — Allied Store Equipment Co., a Hussmann distributor since 1933, is now occupying new quarters at 6100 Wayzata Blvd. here.

Founded by George B. Herman, Sr., the firm is now being operated by his three sons.

George B. Herman is chairman, Neil B. Herman, president, and Philip W. Herman, vice president.

See CHICAGO from the heart of the loop

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Only steps from world-famous State Street, the financial district and all entertainment. Close to lakefront, museums, and all places of interest. *Chicago's newest remodeled hotel.* Deluxe accommodations—300 rooms and suites modernly furnished, smartly decorated. Radio or TV in every room. Air-Conditioned, if desired

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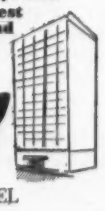
Chicago's newest restaurant and lounge



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IN KANSAS CITY, IT'S THE BELLERIVE HOTEL
100% AIR-CONDITIONED

That's right! Peerless has individually sealed and packaged 22 sizes of pumps from its famous end-suction Fluidyne line, in popular sizes from 1 to 15 hp. These versatile, efficient pumps will handle virtually any general purpose pumping requirements. Their clean, compact design means a made-to-order fit in any piping or pumping layout. Their rugged, built-to-last construction makes them ideally suited to installation indoors or out, to duty that's continuous or intermittent. You name the job and there's a Peerless REDI-PAK to handle it. There's performance for your customer and profit for you in the Peerless REDI-PAK line. Write for full information.

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Frank Klein Takes Product Mgr. Post At Dunham-Bush

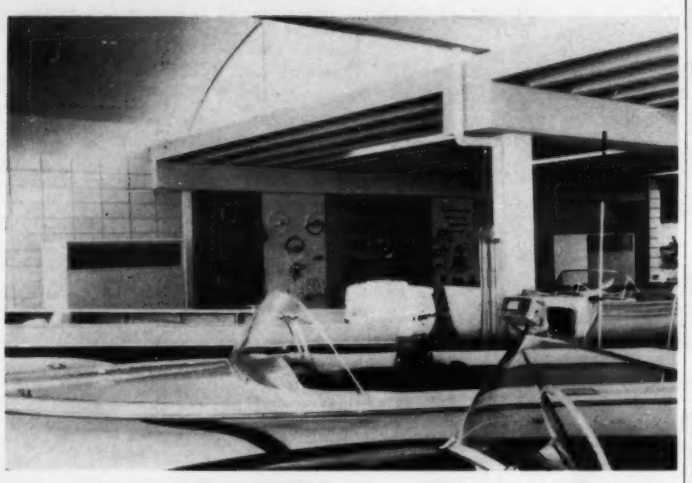
WEST HARTFORD, Conn. — James A. Mulcahey, vice president in charge of sales, Dunham-Bush, Inc. has announced the appointment of Frank D. Klein as product manager for air conditioning products.

F. D. Klein

Klein was formerly chief engineer for Governair Corp. and was also associated with UsAirco. He will be located in the main office of Dunham-Bush here.

38 Tons of Heat Pump Equipment Cools and Heats Anchor Marine Sales, Service Building

YEAR-ROUND air conditioning for the new Anchor Marine, Inc. sales and service building in Baton Rouge, La. is provided by 38 tons of Mathes heat pump equipment installed by Barnett's, Inc. Architect was Lionel Abshire Associates.



VIEW across the sales floor shows in the background two 10-ton heat pump coil-blowers, each delivering 4,000 c.f.m. Outside air is introduced by means of 32-in. by 8-in. ducts in back of the units. The white and beige cabinets on the units blend with the decorating scheme of the interior of the building.

ALL REMOTE sections are located on the roof of the service area of the building. At left are two 10-hp. heat pumps (Model 120 HAR-HP), in the center are two 7½-ton heat pumps (Model 90 HAR-HP). At the extreme right is the condensing unit for the 3-ton unit used to condition the office area (Model 38 HAR).

TWO MATHES 7½-ton heat pump coil-blower units (Model 90 VEB-P-HP) are situated on the west side of the sales floor, providing 6,000 c.f.m. of cool or warm air as demanded by the thermostat. In order to locate remote units so they could not be seen from sales floor it was necessary to use tubing runs up to 10 ft.

PREVENT STUCK PUMPS!

Get USE PROVEN

PUMP AID

with New, Improved Features.

1. A new RUST INHIBITOR which *vaporizes* and reaches into the smallest crevices—
2. CONTROLLED FOAM DECAY provides full seasonal protection *without* foam at start-up time.

Now is the time to prevent stuck pumps . . . and eliminate timeconsuming repairs during your busiest season —next spring. After draining pump, at shut-down time simply inject PUMP AID into pump housing through drain hole. Aerosol packaged PUMP AID E-X-P-A-N-D-S to cover all interior surfaces. At start-up time—just throw the switch and your pump is running. PUMP AID is water soluble and washes away. Easy-to-follow directions on each can. May be used in any make or model pump.

PUMP AID...

- PREVENTS CORROSION
- PRESERVES SEALS
- WILL NOT FREEZE
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- IS WATER SOLUBLE
- IS NOT TOXIC
- IS EASY TO USE
- IS REASONABLY PRICED

Order by the case of twelve cans today from your dealer and be prepared when shut-down time comes. Or write . . .

GUARANTEED Vapco PRODUCTS

Complete literature on request or see your dealer TODAY!

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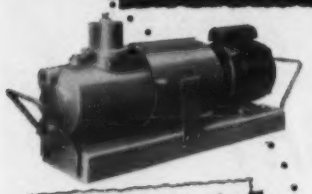
Servicemen Agree...

BEACH-RUSS PORTABLE VACUUM PUMPS

are made with features they desire

High Performance Characteristics

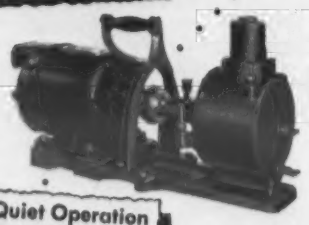
Completely Portable



Automatic Lubrication

Single- or Two-Stage

Long Life



Quiet Operation

Minimum Attention

Valves Eliminated

Beach-Russ Vacuum Pumps are also made in types and sizes for evacuation and testing of refrigeration equipment on a production basis.

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Air Conditioning Market In Jamaica Has Only Been Scratched

KINGSTON, Jamaica — Surface of the air conditioning market has just been scratched in Jamaica, opines L. Brown of Topper's Refrigeration here.

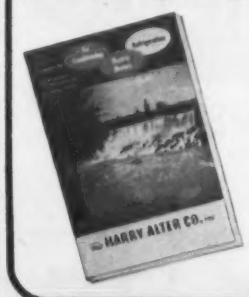
"We think it's on its way to a boom," he added.

Topper's imports air handling units, condensers, and compressors from the United States and fabricates its own air conditioning ductwork.

Customers here, Brown points out, invariably demand to know what kind of service they are going to get before purchasing air conditioning equipment.

OVER THE COUNTER OR THRU THE MAIL

There are six well-stocked Harry Alter warehouses located for your convenient pick up. Mail orders are shipped the same day as received, to *anywhere* in the world. Phone or write us and you'll usually have it the next day. We are nearby to nearly everyone, with everything they need.



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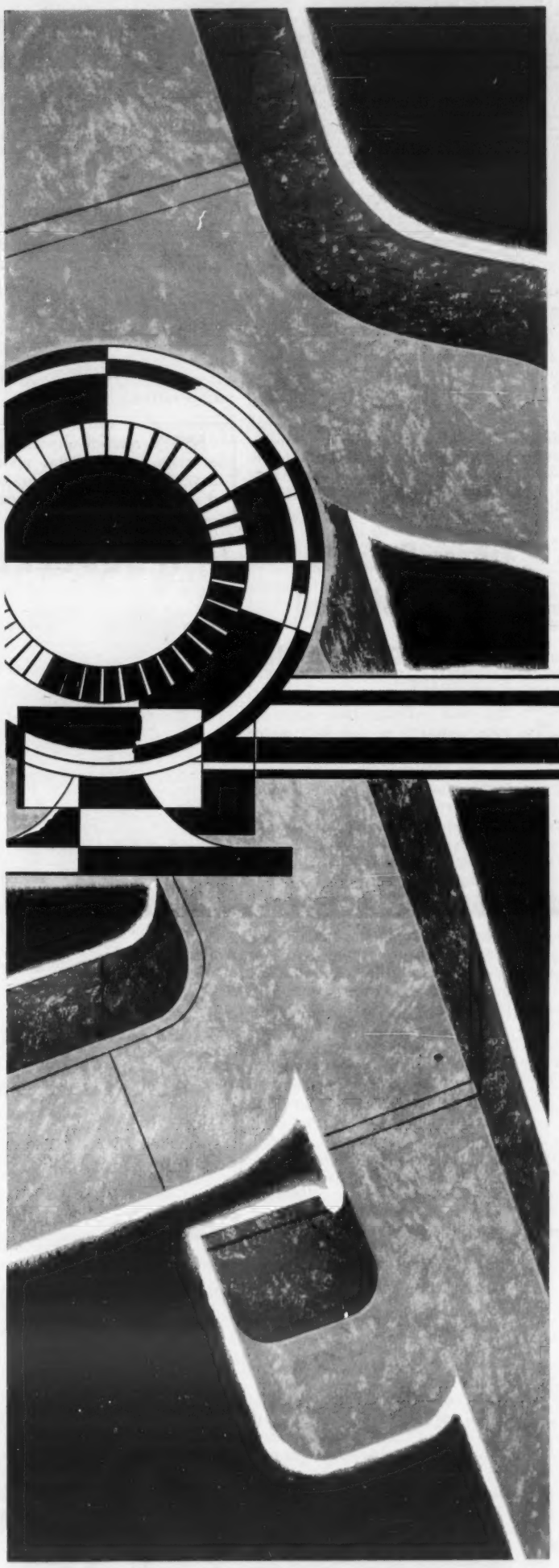

Heating in a cooling publication?

Sure! When it comes to comfort air conditioning—residential, commercial, or industrial—changes have taken place over recent years putting practically all contractors and dealers in similar businesses.

Heating people are in cooling—cooling people are in heating—and the NEWS is their *modern* source of up-to-date information on the whole field. The NEWS is now the "newspaper of the industry" for heating as well as cooling.

Just as you read the NEWS each week for vital, timely news, so do your distributors, contractors, dealers, and prospects.

Mr. Heating Manufacturer: Take advantage of this new force in your business! Act now! Plan your complete unit or parts advertising in the *weekly* newspaper of the air conditioning (heating and cooling) industry.

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LOS ANGELES, 4710 CRENSHAW BLVD.,
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DETROIT, 450 W. FORT ST.,
WOODWARD 2-0924, AL SCHILDHAMMER.

Refrigeration Problems
And Their Solution
(As Written by Paul Reed)

Cold Weather Problems (2)

COMBINATION THERMOSTAT AND LOW PRESSURE CONTROL

If closer control of the temperature of the air in the cooler is desired—closer than can be obtained by straight low pressure control—a combination thermostat and low pressure control can be used with good results, and with good control of both temperature and humidity.

In this method, the fan is not operated continuously, but is controlled by an air type thermostat. This thermostat should be mounted where it will get good air circulation but not too close to, nor too directly in the path of the air from the blower fan. On the opposite wall of the cooler, facing the fan is usually a satisfactory location.

This thermostat should have a differential of from 5° to 6° and may have a user adjustment of 3° or 4° so that the user may adjust the temperature of the cooler if he wishes, and still maintain a good defrost cycle.

The machine is controlled by an ordinary, low pressure control, set to start the machine when the blower coil is completely defrosted. This is usually about 36 to 38 p.s.i.g. for Refrigerant-12. In any event, the machine *must not* start before the thermostat starts the fan and runs the fan for at least a minute or so, in order to complete the defrost of the coil and to dry the moisture from the coil to some extent.

The pressure control must be set to stop the machine at a pressure about 5 to 6 p.s.i.g. below the pressure at which the thermostat stops the fan. The machine must never stop *before* the fan does.

A typical cycle of operation (for Refrigerant-12) is as follows:

1. Blower fan and machine both off.
2. Temperature in the box rises, causing the thermostat to close, thus starting the blower fan. Suction pressure about 30 p.s.i.g.
3. The warm air circulating through the blower coil causes the evaporator pressure to rise, thus melting off any frost that still remains from the previous run.
4. After all the frost is melted off and the coil is comparatively dry, the pressure control closes at about 36 p.s.i.g., starting the machine.
5. The machine runs, with the fan also running. The suction pressure gradually pulls down as the temperature of the air in the cooler is reduced. This is the refrigeration cycle.
6. When the air in the cooler is cold enough, the thermostat opens and stops the fan. Suction pressure at this point is about 19 p.s.i.g.
7. Without the fan running and consequently no warm air passing through the coil, the suction pressure is quickly reduced the three or four p.s.i.g. to the cut-out setting of the low pressure control (about 16 p.s.i.g.), and the machine then stops.
8. Both fan and machine off. Some defrosting of the coil occurs, to be completed during the next period during which the fan is running but before the machine starts.

Thus, sequence of operation is:

1. Fan starts—machine off.
2. Fan and machine on together.
3. Fan stops—machine still on.
4. Fan and machine both off.

Humidity conditions within the cooler may be varied by adjusting the period between the time when the fan comes on but before the machine starts.

The above example was taken from an actual installation. It will be observed that the average running suction pressure was about 21 p.s.i.g. corresponding to an average coil temperature of about 20° indicating that the blower coil was a little too small for the machine and probably a little too small for the installation even in the summer.

Under the operating conditions shown in this example and in Fig. 1, the temperature of the air in the cooler stayed between 35° and 37°, and the relative humidity averaged about 78%. The relative humidity would have been much better if the blower coil and machine had been chosen to balance at an average coil temperature of about 25°, which would have resulted in an average running suction pressure of about 24.5° corresponding to a saturation pressure of 25°.

This method is often useful when a good control of cooler temperatures are desired and still maintain a fairly good relative humidity under adverse conditions.

(To Be Continued)

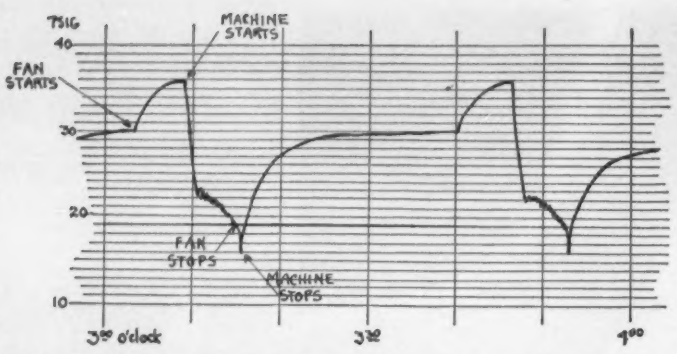


FIG. 1—Typical suction pressure chart with blower coil and machine controlled by thermostat—low pressure control combination; load very light as with cooler in cold location.

GSA Orders 'Dual Temp' Refrigerators for Use In Pacific Ocean Area

CHICAGO—Several thousand 12-cu. ft. Admiral "Dual Temp" refrigerators have been ordered by the General Services Administration for shipment to U. S. Air Force bases throughout the Pacific Ocean area, as well as in California and Florida, it was announced by Admiral Corp.

Oberly also announced the receipt of an order from the U. S. Army Quartermaster Corps for nearly 1,700 12-cu. ft. automatic defrosting Admiral refrigerators.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

Offers Pointers On Use of Well Water for Cooling

BROOKLYN — Air conditioning and refrigeration contractors planning to use well water for cooling and then return it to the ground can save themselves and their customers considerable money and anguish by keeping a few pointers in mind, Emil J. Merenda, vice president of M & R Air Conditioning Corp. here, remarked.

Merenda, whose experience with wells goes back many years, pointed out that many contractors go wrong by not checking on the direction of underground water flow where they plan to sink their well.

Often a contractor will design his system on the basis of a certain well water temperature. After installation, he will find that water temperature has risen to the point where more refrigeration equipment is needed to do the cooling job.

Difficulty here may well be that the contractor did not know in which direction underground water was flowing. Without realizing it, he may have dug his diffusion well upstream from the supply well.

In such a case, he will soon be drawing the warmer water he has been dumping into the ground back up through the supply well.

"I ran into the same problem when installing cooling in my own home," he admitted ruefully. But in this case, it was not because he did not know which way the water flowed.

The source of his trouble was a large theater about a quarter mile upstream. When the theater had its well-water system going full blast, it warmed up the water supplied to Merenda's system.

"The contractor must keep an eye pealed for big well-water using installations nearby," he cautioned.

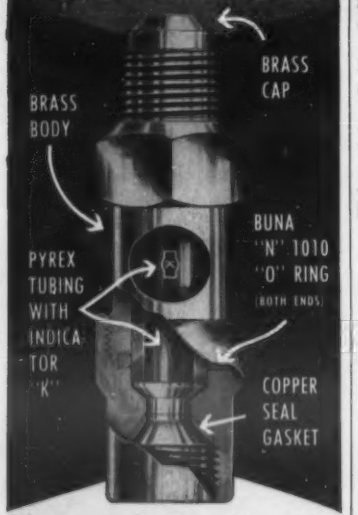
Diffusion wells should always be sunk well below the water table, Merenda added. If not, the water will rise, causing leaks in basements and heaving of basement floors.

"There's more to this problem than just digging a well."

DETECT TROUBLE FAST!

IN ANY AIR CONDITIONING AND REFRIGERATION LIQUID LINE

KEROTEST MODEL R81C
IN-LINE Liquid INDICATOR



It's easy to detect trouble quickly in refrigeration lines with this indicator. Letter "K" is etched on pyrex heat-resisting tube which shows through sturdy brass body at sight port. When "K" is not magnified, it indicates a shortage of refrigerant or a clogged line. Available in male and female flare sizes. Maximum operating pressure —500 p.s.i. and maximum temperature 200° F. Easy to install.

See your Kerotest wholesaler! Ask for Model No. R81C.

KEROTEST

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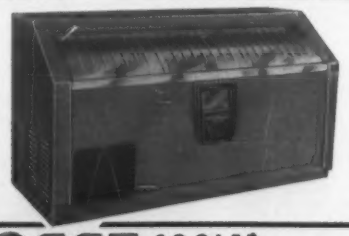
Up to 45% greater capacity than ever before . . . 6'6" model, with coil only, holds 40 cases!



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GET THIS NEW TUBING DATA CATALOG . . . FREE!

PRECISION TUBE COMPANY

Fort Worth 'Shield' RACCA--

(Concluded from Page 1, Col. 5)

Ducts and registers must be sized for proper air distribution.

All ducts to be air-tight.

Prefabricated ducts to be screwed and taped at joints and suspended with metal straps.

Branch take-offs from trunk ducts must be enlarged by at least 120% of volume of branch and equipped with adjustable air dampers.

Ducts for cooling must be insulated with 2-in. glass fiber and .002-in. aluminum foil backing; ducts for heating must have 1-in. glass fiber insulation.

All ducts in crawl space must not touch the ground.

All crawl space returns must have a vapor barrier of reinforced polyvinyl or 55-lb. roofing felt applied to ground surface.

Return air intakes are to be located so that no air from a more distant room is drawn across the floor of the living room. If the house is a two-story or split level design, a return must be taken from the lowest level.

Recommendations are also made as to refrigerant lines sizes and insulation of suction lines. Condensate overflow pans with separate drains must be provided for all coils installed in the attic.

The association further explains that it worked up its own set of standards because it was convinced that existing national standards did not properly meet the requirements in the Fort Worth area.

(Concluded from Page 1, Col. 2)

"Assured Profits Through Good Management" by Rudy Berg, president of Air-Conditioning & Refrigeration Institute.

"How One RACCA Association Makes Profits Easier" by William D. Moody, past president of RACCA from Houston.

"How the Wholesalers Can Pave the Way for Contractors' Profits" by William Miessemer, vice president of Air Conditioning & Refrigeration Wholesalers Association.

"Prospecting With the Suppliers for Profits" by George Howe, past president of RACCA from Chicago.

"There Are Profits In Service" by Al Hanson, president of National Refrigeration Mfg., Inc. of Los Angeles.

"Consulting Engineers Can Make the Job More Profitable" by Ralph M. Westcott, national president of the Consulting Engineers Council.

"Profits With Trained Personnel," by Dean J. A. C. Grant, public representative of the Joint Journeyman & Apprentice Training Committee; Harry Bowe, apprentice coordinator, Los Angeles; and Joseph Corcoran, director of apprenticeship training of the United Association.

"The Labor Organization and Profits for Contractors" by Henry B. Ely, RACCA general counsel and western representative.

"Prospecting With the United Association" by Peter T. Schoeman, general president and John McCartin, assistant general president of the United Association.

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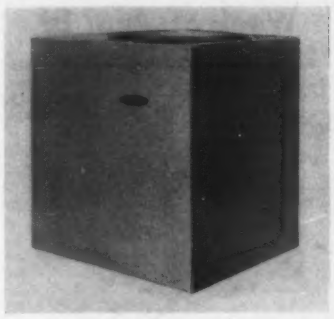
10 Gallon Pressure Type
ECONOMICALLY PRICED
. . . sturdy . . . economical . . . stainless steel drain top . . . stainless steel cooling tank . . . ⅓ H. P. Tecumseh hermetic unit . . . five year warranty on refrigeration cycle. . . .
REMCOR Model CW-10
REMCOR PRODUCTS CO.
321 E. Grand Ave., Chicago 11, Ill.
manufacturers of water coolers since 1940

New Firm Opens

LOUISVILLE, Ky.—Automatic Air Corp., a new enterprise for this area, has opened at 1237 Lexington Rd., Louisville, to sell and service air conditioning and heating equipment. Floyd L. Nickels is president and general manager.



PAYNE gas-fired air conditioning unit.

Payne Gas Unit--

(Concluded from Page 1, Col. 2)

for use with companion upflow, downflow, or horizontal furnace installations utilizing matching coils, or can supply cooling alone with a fan-coil blower unit," it was pointed out. "The combination installation permits complete year-round gas-fired air conditioning.

"The complete installation requires no special wiring, only a 110-volt connection, a gas service connection, and the connection of plastic water lines to the cooling coil. The Payne Miracool air conditioner will be distributed west of the Rocky Mountains."

Electric Heating--

(Concluded from Page 1, Col. 4)

exhibit space will be available for the show, which is expected to attract approximately 2,000 selected "in-trade" visitors: power suppliers, electrical distributors, electrical contractors, architects, builders, electrical inspectors, electrical engineers, component manufacturers, Federal and state housing administration leaders, and representatives from real estate, mortgage, and banking interests."

A three-day symposium will be held in conjunction with the exposition. Key industry and non-industry figures will speak and lead discussions on subjects of vital interest to each visiting trade group.

The exposition - symposium was planned at a meeting at NEMA headquarters here with representatives of the NEMA Electric House Heating Equipment Section, Live Better Electrically Project, National Association of Electrical Distributors, Edison Electric Institute, National Rural Electric Cooperative Association, United Mine Workers of America, American Public Power Association, and National Mineral Wool Association.

General chairman of the event will be Stanley B. Aronson, head of the NEMA Electric House Heating Equipment Section's Publicity Committee, and sales manager of Berko Electric Mfg. Corp., Queens Village, N. Y. C. F. Kreiser, general sales manager, Edwin L. Wiegand Co., Pittsburg, is chairman of the section.

Professional direction of the exposition is in charge of Robert T. Kentworthy, Inc. of New York City.

H. Cecil Hancock Dies

MIAMI, Fla. — H. Cecil Hancock, 57-year-old president of the Hancock Refrigeration Co., died July 2.

Temporary Heating, Cooling--

(Concluded from Page 1, Col. 5)

United Association. Members include Harvey W. Hottel, Refrigeration & Air Conditioning Contractors Association, secretary; Irvin L. Rechkemmer, National Asscition of Plumbing Contractors; and Frank C. Lawton, Mechanical Contractors Association of America.

Earlier this year, the subcommittee drew up a resolution embodying its thoughts and recommendations on the subject. The resolution was approved by JIPC. It read:

Text of Resolution

"WHEREAS: The mechanical contractor throughout the industry has experienced difficulty in properly preparing his original bid for mechanical work when the mechanical specifications require temporary heating, ventilation, or cooling at the option of the owner, general contractor, or architect; and

"WHEREAS: Due to unpredictable weather conditions, performance schedules and various requirements of the plastering and painting sub-contractors, etc., costs for temporary heating or cooling can not be determined; and

"WHEREAS: Instances were reported when heating or cooling (for the purpose of dehumidifying) was demanded, including operation and fuel costs although the building or parts of the building were not fitted with proper doors and many windows were without class installed; and

"WHEREAS: Temporary connections without explicit and detailed specifications can require mechanical contractors to furnish electrical power and control wiring, temporary piping to standing radiation in the center of many or all rooms, which invariably cause much waste and damage to units in operation; and

"WHEREAS: A simple sentence written into the specifications requiring temporary heating or cooling as required by the general contractor can obligate and cause the mechanical contractor the loss of thousands of dollars depending upon demands made; and

"WHEREAS: He may fortunately evade all costs for this work due to favorable weather conditions or possibly due to unusual favorable coordination with the job superintendent, etc.; therefore

"BE IT RESOLVED: That it would appear proper and fair to all concerned that this cost for temporary work be negotiated on a cost plus basis with the mechanical contractor performing the contract work on the job as required and as deemed necessary by the owner or the general contractor in order to meet the temperature requirements of other subcontractors and thereby justify the additional expenditures depending on the urgency and the over-all importance as related to all trades and the necessity of meeting certain performance time schedules."

JIPC members from the Mechanical Contractors Association of America doubted that it would ever be acceptable to an owner or general contractor for the following two reasons:

(1) The owner is interested, when signing a contract for a new building, to have the contract amount be all inclusive. This would be impossible under this resolution; and

(2) A general contractor would not be willing to sign an open end order to a mechanical contractor because he would be operating under a signed contract with a firm bid.

Representatives from MCAA did feel, though, that this resolution is a step in the right direction and that the Joint Industry Program Committee "should proceed from here after having received a reaction from an owner or general contractor group."

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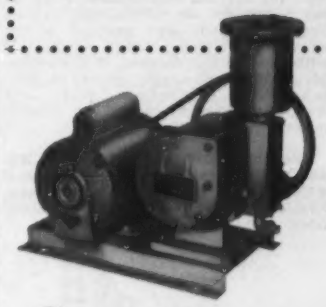

Completely removing water vapors and other condensables before introducing refrigerants stops formation of corrosive acids that will cause operating trouble and damage to equipment. These new Stokes pumps were designed specifically to give you that extra protection. All this is accomplished at room temperatures; no heating, torching or bake-out. And look at their features! Rugged, reliable industrial construction, fast-pumping, lightweight, compact, portable, quiet . . . giving you *more performance per dollar than any comparable pump!* For full information, just print your name below and attach this ad to your letterhead.

(till in name)

Vacuum Equipment Division
F. J. STOKES CORP.
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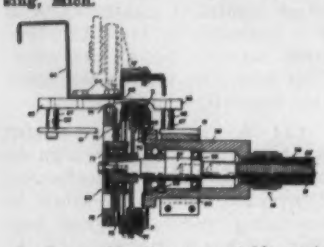
Phila. 20, Pa.

STOKES

PATENTS

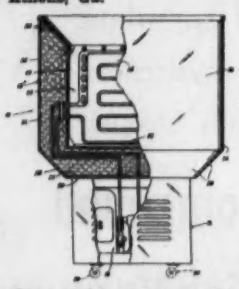
Week of April 7

2,880,595. TRUCK REFRIGERATION SYSTEM. Orton S. McGuffey and James W. McGuffey, Lansing, Mich., assignors to Tranter Mfg. Inc., Lansing, Mich.



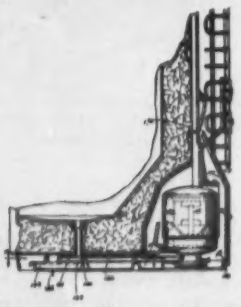
1. In combination, a portable nesting refrigerating box comprising a display refrigeration cabinet having an open compartment for foodstuffs, said cabinet having side walls of substantial thickness having insulation between the inner and outer panels thereof, said cabinet having inwardly sloping top wall panels and similarly sloping exterior lower panels, and a mechanism casing beneath said cabinet for housing a compressor-condenser unit, said casing being of a cross section to fit within the cabinet compartment of a similar refrigerating box, said sloping exterior lower panels being formed to rest on the inwardly sloping top wall panels of a similar refrigerating box.

2,880,596. NESTING PORTABLE FROZEN FOOD DISPLAY BOX. William R. Brown and George A. Watson, Jr., Athens, Ga.



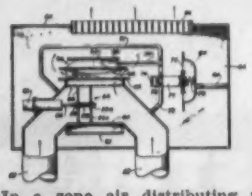
1. In a refrigerating system for a truck or like vehicle characterized by a chassis and a van-like body having a vertical outer skirt portion, a refrigerating unit including a compressor mounted by said chassis adjacent and within said skirt portion, a readily applicable bracket-like support mounting said unit on said chassis, comprising a bracket on which said unit is fixedly secured, said bracket having an upright member firmly engageable with an upright surface of a member of said chassis, and means in nonpenetrative engagement with said chassis member to clamp said bracket member to said chassis surface.

2,880,597. COMPRESSOR-CONDENSER MOUNTINGS FOR HOUSEHOLD REFRIGERATORS. John M. Wellborn, Evansville, Ind., assignor to Whirlpool Corp.



1. A refrigerator cabinet comprising an outer shell and an inner liner separated by insulation, the said outer shell comprising a pair of side walls, a top wall, a rear panel, and a bottom panel, the said side walls having inwardly extending flanges at the bottom, and said bottom panel comprising an integral rectangular metal sheet formed at each of its lateral sides with a downwardly pressed rail formation extending from front to back. . . .

2,880,782. AIR CONDITIONING APPARATUS. Joseph W. Kreuttner, North Tarrytown, N. Y., assignor to Buensod-Stacey, Inc., New York, N. Y.

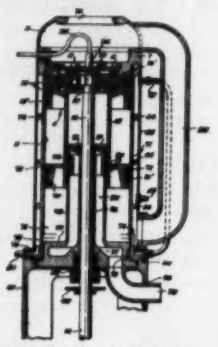


2. In a zone air distributing unit for air conditioning apparatus having a casing with a warm air inlet port and a cold air inlet port to admit warm and cold air respectively, damper means for said ports to proportion selectively the air admitted from the respective ports, the combination including a mixed air inlet chamber receiving air from said warm and cold air ports, a mixed air outlet port to discharge mixed air to a zone. . . .

2,880,779. TUBE BENDING MACHINE HAVING RECIPROCATING AND PIVOTED BENDERS. Rene Pompeo Mingori, Paris, France.

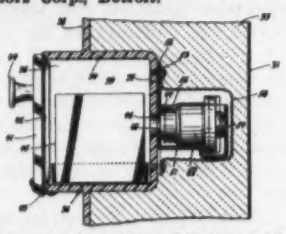
1. In a tube benging apparatus, in combination, two laterally spaced eccentrically mounted rotatable bending rollers each having annular substantially concentric working surfaces of channeled cross-section adapted to receive a tube when overlying the rollers and spanning the space between said rollers, reciprocable means comprising an arcuately channeled forming element movable into engagement with the tube. . . .

2,880,927. COMPRESSOR FOR GASEOUS MATERIALS. Anatol T. Ploegert, Buffalo, N. Y., assignor to The Wittemann Co., Inc., Buffalo, N. Y.



1. A compressor including an upright cylinder having a cylinder head at the upper end thereof, a valve in said cylinder head for admitting gas into said cylinder, a piston reciprocable in said cylinder for compressing gas between said piston and said cylinder head, said piston having a second cylinder fixed thereon on the face thereof opposite to said cylinder head, a stationary piston fitting with said second cylinder. . . .

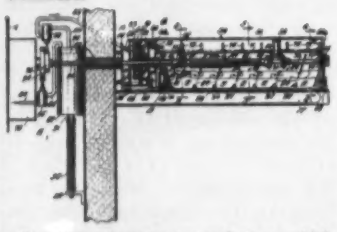
2,880,971. REFRIGERATOR BUTTER COMPARTMENT. Donald L. Coning, Mound, Minn., assignor to General Motors Corp., Detroit.



In a refrigerator cabinet provided with a food storage chamber bounded by spaced apart walls having insulating material disposed in the space therebetween, a closed refrigerating system associated with said cabinet including a refrigerant evaporator for cooling said chamber to a low food preserving temperature, a butter storage compartment inset in a wall. . . .

REISSUES

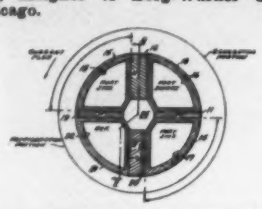
24,628. ICE MAKING MACHINE. Dudley E. Heath, Evansville, Ind., assignor, by mesne assignments, to Whirlpool Corp., a corporation of Delaware.



19. An automatic ice maker in which liquid is frozen into ice in repeated cycles as governed by a control means operable responsive to a condition related to the formation of ice comprising: a cooling element; an ice mold in heat exchange relation to said cooling element; means positioned in said mold to form individual ice shaping cells and having a series of transverse walls movable relative to said mold to loosen ice pieces frozen in said cells; actuating means connected to said transvers walls to move said series of transverse walls relative to said mold to loosen ice pieces frozen in said cells; and means also actuated by said actuating means for thereafter removing loosened pieces from mold.

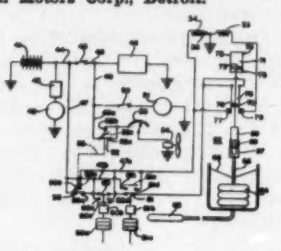
Week of April 14

2,881,594. ELECTRICAL REFRIGERATING DEVICE. Neil E. Hopkins, Spring Garden Township, York County, Pa., assignor to Borg-Warner Corp., Chicago.



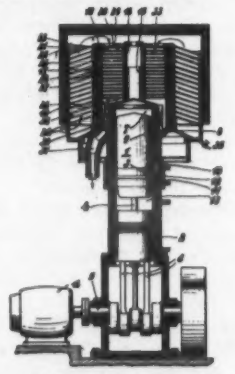
1. A refrigerating device comprising a first pair of elements having dissimilar thermoelectric properties and having a combined heat-transfer and electrical conducting member therebetween; a second pair of elements having dissimilar thermoelectric properties and having a second combined heat-transfer and electrical conducting member therebetween; and a pair of heat-transfer and electrical transmission members interconnecting said first and second pairs of thermoelectric elements.

2,881,597. TWO-SPEED DRIVE AND CONTROL MEANS FOR REFRIGERATING APPARATUS. James W. Jacobs, Dayton, Ohio, assignor to General Motors Corp., Detroit.



1. In combination: a power member; a driven device to be driven by said power member; a high speed ratio clutch connected between said power member and said driven device and including a teaser disk construction and a self-energizing construction to engage and sustain engaged and to disengage and sustain disengaged said high speed ratio clutch; a low speed ratio clutch connected between said power member and said driven device and including a teaser disk construction and a self-energizing construction to engage and sustain engaged and to disengage and sustain disengaged said low speed ratio clutch; electromagnetic means to move said teaser disk constructions and said self-energizing constructions to engaging and disengaging positions.. and fluid measure operated means to momentarily energize and immediately deenergize said electromagnetic means selectively to engage and disengage either said high speed ratio clutch or said low speed ratio clutch.

2,881,599. DEVICE FOR THAWING AN ICE SEPARATOR USED IN A SYSTEM COMPRISING A COLD-GAS REFRIGERATOR. Aldert Teunis Bloem, Emmasingel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Co., Inc., New York, N. Y.

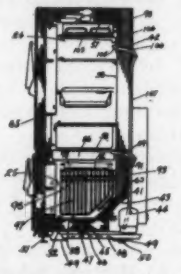


1. A heating device for thawing an ice separator associated with apparatus including a cold-gas refrigerator comprising; a fan, means for driving said fan, means for supplying the air produced by said fan to said ice separator, a heating device located in the last-mentioned means between said fan and said ice separator, and a normally closed, valve arranged in said last-mentioned means between said heating device and said ice separator. . . .

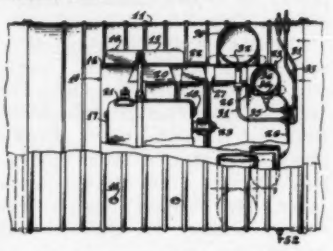
2,881,601. HOUSEHOLD REFRIGERATORS OF THE CYCLE DEFROSTING TYPE. Leo G. Beckett, Henderson, Ky., and Raymond E. Tobey, Evansville, Ind., assignors to Whirlpool Corp.

1. A two door, two compartment household refrigerator comprising a single outer shell and a single inner liner spaced from each other by insulation, said liner being separated into a lower freezing compartment and an upper above-freezing compartment by an insulating partition, comprising a metal box containing insulation between its upper and lower walls, said upper wall forming a drain pan for gathering condensate and discharging it through a pipe. . . .

Editor's Note: Patents described here have been selected from the "Official Gazette" of the United States Patent Office. They offer only a brief summary of each invention. In some instances only the first part of the digest is presented.

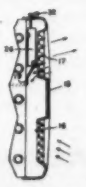


2,881,687. AIR SUPPLY SYSTEM. Paul A. Manor, Columbus, Ohio, assignor to Surface Combustion Corp., Toledo, Ohio.



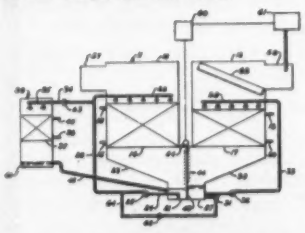
1. In an air supply system for aircraft, an air supply duct leading to the exterior of the aircraft and constituting a ram air inlet duct; a sleeve within said duct dividing the same into inner and outer air passages; a blower within said sleeve for moving air through the inner air passage; support means disposed in the inner air passage; a first inflatable tube supported by the support means and adapted to operate to close the inner air passage when inflated and to open said passage when deflated; a second inflatable tube in the outer air passage adapted to close the outer air passage when inflated and to open said passage when deflated; a fluid compressor; and conduit means for delivering fluid under pressure to said tubes for inflating the same.

2,881,689. AIR DISTRIBUTION MEANS. Frank D. Stevens, Syracuse, N. Y., assignor to Carrier Corp., Syracuse, N. Y.



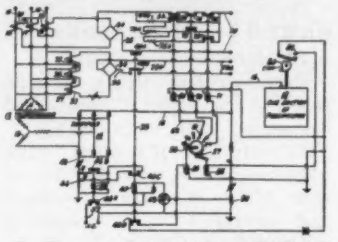
1. A grill for distributing air comprising a frame, a first set of horizontally extending vanes adjacent one edge thereof each having a common acute angle of inclination with the plane of the grill and a second set of vanes vertically spaced from said set and adjacent the opposite edge of said frame, each having a common obtuse angle of inclination with the plane of the grill. . . .

2,881,853. CONDITIONING METHOD AND APPARATUS. Gilbert A. Kelley, Toledo, Ohio, assignor to Surface Combustion Corp., Toledo, Ohio.



6. A method for conditioning air which comprises: withdrawing hygroscopic liquid from a first sump; spraying the hygroscopic liquid into a first enclosed zone into contact with a cooled surface; collecting a part of the hygroscopic liquid so sprayed in the first sump; withdrawing hygroscopic liquid from a second sump; spraying the hygroscopic liquid into a second enclosed zone into contact with a cooled surface; collecting in the second sump hygroscopic liquid from within the second enclosed zone. . . . . .

2,881,855. PRECIPITATOR FLASHOVER CONTROL THROUGH CURRENT AND VOLTAGE RESPONSE. Hans Klemperer, Belmont, Mass., assignor, by mesne assignments, to Apra Precipitator Corp., New York, N. Y.

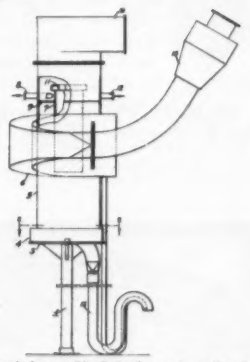


1. In an electrostatic precipitator power circuit having means operative to vary the voltage supplied to the precipitator electrodes; control means responsive to a predetermined increase of current in said power circuit; control means responsive to a predetermined reduction of the charging voltage applied to the precipitator electrodes due to the occurrence of a flashover. . . .

2,881,857. ELECTROSTATIC PRECIPITATORS. William Trevor Cosby, Leeds, Duncan Elliott, Huddersfield, Ansell Wandless Gifford, Norton-on-Tees, and Robert Johnston Dawson, Stockton-on-Tees, England; said Gifford, said Elliott, and said Dawson assignors to W. C. Holmes & Co. Ltd., Huddersfield, England, a British company.

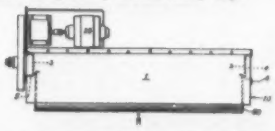
In an electrostatic precipitator having a pair of spaced frame elements, an electrostatic precipitator electrode comprising a pair of spaced, opposed ferrules each having a bore extending longitudinally therethrough, one of said ferrules extending through and bearing against one of said frame elements, the other of said ferrules extending through the other of said frame elements and having a threaded exterior surface. . . .

2,881,856. APPARATUS FOR SEPARATING DUST OR LIQUID DROPS FROM A GASEOUS MEDIUM. Evert Krantz and Kjell-Erik Sjalin, Stockholm, Sweden, assignors to Aktiebolaget Svenska Plaktfabriken, Stockholm, Sweden.



An upright cylindrical casing having a top opening for the discharge of clean gas, a bottom wall, and a transverse partition intermediate said top opening and said bottom wall, a vertical tube mounted in said partition concentrically within the casing having a lower portion depending downwardly from said partition and an upper portion projecting upwardly from said partition. . . .

2,881,859. ATMOSPHERIC LINT CONDENSER. Arthur Nutting, Louisville, Ky., assignor to American Air Filter Co., Inc., Louisville, Ky.



1. An air cleaner comprising: an endless, highly porous conveyor arranged to move in an endless path which extends across an air flow path so that successive portions of said conveyor enter said air flow path at an entrance point, pass across it and then leave it at an exit point; means for moving said conveyor; an air cleaning medium consisting exclusively of a single ply of thin, limp, flimsy sheet-like fibrous lint-condensing fabric. . . .

(To Be Continued)

Servicing Automobile Air Conditioners

(Vol. 4 — 1959 Models)

BY C. DALE MERICLE

Oldsmobile (1)

Oldsmobile Div.
General Motors Corp.
Lansing 21, Mich.

Basically, the refrigeration hookup of the 1959 Oldsmobile air conditioner is the same as the 1957 and 1958 models, which are described in detail in Vols. 2 and 3, respectively.

The 1959 system includes a Frigidaire 5-cylinder axial compressor driven through a magnetic clutch; condenser installed in front of a car radiator; a combination receiver-dehydrator-sight glass mounted beside the condenser; evaporator assembly mounted on the right side of the cowl in the engine compartment; a separate blower assembly incorporating vacuum operated air valves or dampers, and a hot gas by-pass valve to control temperature.

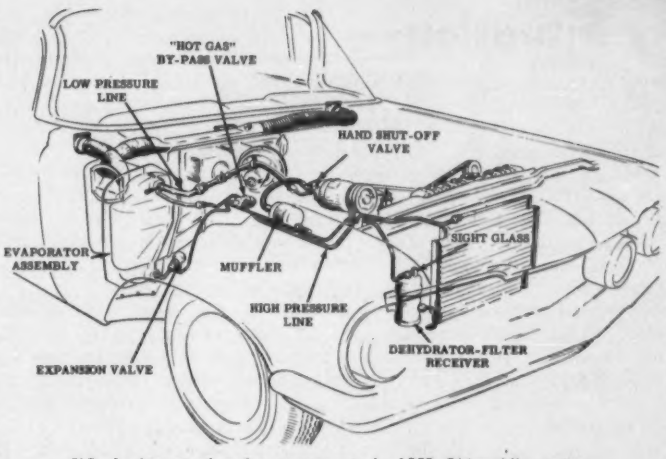


FIG. 1—Layout of major components in 1959 Oldsmobile system.

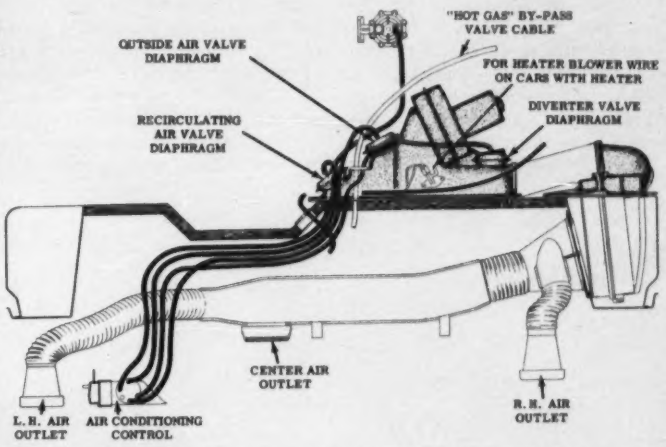

"HOT GAS" BY-PASS VALVE CABLE
OUTSIDE AIR VALVE DIAPHRAGM
FOR HEATER BLOWER WIRE ON CARS WITH HEATER
RECIRCULATING AIR VALVE DIAPHRAGM
DIVERTER VALVE DIAPHRAGM
CENTER AIR OUTLET
L. H. AIR OUTLET
AIR CONDITIONING CONTROL
R. H. AIR OUTLET

FIG. 3—Air distribution system of 1959 Oldsmobile air conditioner, including vacuum lines and diaphragms.

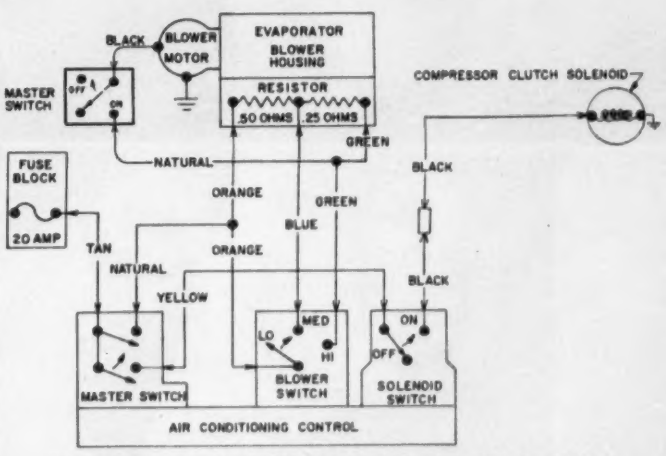


FIG. 4—Wiring diagram of 1959 Oldsmobile air conditioning system.

General layout of the 1959 system is shown in Fig. 1.

Refrigerant-12 is used in the 1959 Oldsmobile system. Complete charge is 5 lbs.

Control panel of the 1959 air conditioner is shown in Fig. 2. When the control lever at bottom is moved to right and the "Normal" or "Recirculate" button is pressed, the magnetic clutch is engaged and the compressor operates. Control lever

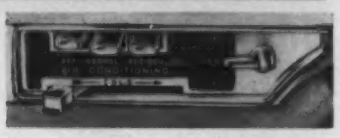


FIG. 2—Control panel of 1959 Oldsmobile air conditioner.

on right of panel permits selection of low, medium, or high-speed blower operation.

Horizontal moving lever is connected by means of wire cable to hot gas by-pass valve located in engine compartment near compressor. Coldest temperature is obtained when lever is in extreme right position.

Buttons above temperature lever actuate vacuum power units (see Fig. 3) in blower assembly. When the "Normal" button is pressed, 100% outside air is introduced into the system. When the "Recirculate" button is pressed, a mixture of approximately 75% recirculated air and 25% outside air is admitted to the evaporator.

Air is delivered to the car interior through three adjustable air outlets on the dash (see Fig. 3).

Wiring diagram of the 1959 system is shown in Fig. 4.

(To Be Continued)

San Diego County Group Finalizes Plans for Cooling Promotion

SAN DIEGO, Calif. — Plans for an air conditioning campaign scheduled for August and September were finalized at a recent meeting of the Air Conditioning Committee of the Bureau of Home Appliances of San Diego County.

Dick Huntington of University Heating & Air Conditioning is chairman of the committee. Dave Jackson of Jackson & Blanc is vice chairman.

A broad coverage of advertising is scheduled for local and county newspapers, TV, radio, and outdoor boards.

In a recent bureau bulletin, J. Clark Chamberlain, secretary-manager, said: "Sales have been fantastically high for this area and with the promotion are certain to set new records for the year."

He indicated that all types of air conditioning — residential, commercial, and industrial—are selling at a fast pace.

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ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other address by actual word count. Please send payment with order.

POSITIONS WANTED

MANUFACTURERS' REPRESENTATIVE—Registered P.E. desires product related to air conditioning, refrigeration or related fields. 20 years in key positions with topflight nationally known corporations. Aggressive and cooperative—pleasing personality. Want opportunity where outstanding effort will achieve results. Present location—Michigan. Full resume on request. BOX A6317, Air Conditioning, Heating & Refrigeration News.

SALES MANAGER — young graduate engineer offers 12 years' extensive sales experience including five years' export, knowledge major foreign and domestic markets to progressive firm manufacturing heating, air conditioning equipment or household appliances in return for nominal salary plus incentive arrangement. Resume sent on request. BOX A6320, Air Conditioning, Heating & Refrigeration News.

EXPERIENCED FIELD engineer in air conditioning, heating & refrigeration desirous of similar position. Have taught field and factory schools, tested and service equipment in field. Family man, 33 years old, graduate technician. Willing to re-locate. Qualifications and personal data upon request. BOX A6321, Air Conditioning, Heating & Refrigeration News.

POSITIONS AVAILABLE

DISTRICT SALES Managers—Perfection Industries expanding, nationwide selling program and sales volume growth create several territory opportunities for men experienced in selling distributors and working with dealers. Must have good sales background in heat pumps and air conditioning equipment plus some heating experience. Attractive incentive program, salary and expenses. Write in confidence to: Carl W. Millsom, Vice President of Sales and Advertising, PERFECTION INDUSTRIES, Division of Hupp Corporation, 1135 Ivanhoe Road, Cleveland 10, Ohio.

MFGRS. REP.—Side line—Several exclusive territories available for reps to sell "RAC Pricing Service." If you are calling on contractors and wholesalers, this publication will be a very profitable side line. Easy to sell—excellent commission. Write RAC PRICE REPORTER, 2812 South Robertson Blvd., Los Angeles, Calif.

ENGINEER REFRIGERATION Controls—To head a department on design and development of commercial refrigeration control valves of all types; national corporation with midwestern manufacturing and engineering facility; salary and bonus commensurate with work background and ability. Send full details, qualifications and personal data to BOX A6172, Air Conditioning, Heating & Refrigeration News.

MANUFACTURERS REPRESENTATIVES—Cleveland, Indianapolis, Pittsburgh, Buffalo, Albany—For well known line of commercial air conditioning equipment including large tonnage packages, air handlers, coils, etc. Must have adequate technical background and established customer following. Address all details to BOX A6314, Air Conditioning, Heating & Refrigeration News.

EXPERIENCED SALESMAN — Expanding midwest manufacturer of warm air furnaces, air conditioners, heat pumps and complete line of prefab pipe and fittings, needs thoroughly experienced sales representative who, after brief indoctrination period, can maintain present accounts and establish new distributors and dealers in protected midwest territory. Draw and expenses against commissions. Pension plan, company paid insurance. Must be free to travel. Send resume of education and experience to BOX A6322, Air Conditioning, Heating & Refrigeration News.

SALES ENGINEER for OEM Coil Department in home office of midwest manufacturer. M.E. degree or equivalent. Send complete resume to BOX A6323, Air Conditioning, Heating & Refrigeration News.

REFRIGERATION SERVICE man with at least 6 years of experience in commercial refrigeration equipment, ¼ to 100 ton capacity. This is an old company handling national line and located in Central Michigan. Steady work. Write giving experience, age, salary wanted. BOX A6324, Air Conditioning, Heating & Refrigeration News.

EQUIPMENT FOR SALE

AJAX ICE Machine parts—We have purchased the inventory of parts, plus all tooling, for the Ajax Electric Iceman, formerly manufactured by Servel, Inc. We are now furnishing replacement parts, for all models including Ajax Pebble Machine. Catalog & prices available. AJAX EQUIPMENT CO., INC., 73 Pine Street, Montclair, N. J.

PORTABLE AIR conditioners, water cooled, 10,300 BTU, completely self contained including condensation pump and water valve. New in original factory cartons. List $379.50, our price $154.50. 10 or more $149.50. FOB Chicago, Ill. STANDARD AIR SERVICE COMPANY, 1225 S. Wabash Ave., Chicago 5, Illinois.

BUSINESS OPPORTUNITIES

BUSINESS FOR sale — Established over twenty five years heating and air conditioning business in growing territory. Call or write: BREITMEYER HEATING & AIR CONDITIONING, 1595 S. Gratiot Avenue, Mt. Clemens, Michigan. Howard 8-6651.

FOR LEASE—building 50 ft. x 75 ft. on main highway. Lot 115 ft. x 300 ft. Plenty of space for parking. Call or write: BREITMEYER HEATING & AIR CONDITIONING, 1595 S. Gratiot Avenue, Mt. Clemens, Mich. Howard 8-6651.

COMMERCIAL STORE fixtures dealer —New idea is born—Sell Ma and Pa food stores at a nice profit. Write detail. J. A. Farrell, 7918 Ingleside Ave., Chicago, Illinois.

LINES AND Distributorships wanted—Established distributor interested in taking on an additional major hardgoods line. Centrally located to service Long Island area. 10,000 sq. ft. warehouse, trained sales force, delivery facilities available. BOX 349, Mineola, New York.

FOR SALE: Old, established commercial refrigeration, sales and service on main street of town of 35,000 population, Columbia Basin area. Long-time lease on building and dwelling. Owner wants to retire. Will sell at inventory. Write BOX A6242, Air Conditioning, Heating & Refrigeration News.

MISCELLANEOUS

ATTENTION REFRIGERATION Servicemen: Would you be interested in saving from 25 to 50% on many standard refrigeration and air conditioning parts and supplies? Send for our free circulars and catalogs. WALTER W. STARR, 2833 Lincoln Ave., Chicago 13, Illinois.

Add-A-Bin

Creates about 500 pounds storage for the 200 pound FRIGIDAIRE cuber
Bin with special chute goes UNDER the cuber

NO CUTTING OF FLOOR
Gains hundreds of pounds of cubes for week-end user where otherwise the machine would shut down because full.

(Also crushers for Frigidaire ice cubes.)

N. Silverman Inc.,
488 Seventh Ave., N. Y.
LA 4-2640 — CH 4-3224

FIELD SERVICE ENGINEER

Leading manufacturer of food store equipment requires a Field Service Engineer, age 30 to 40, to headquarter in or near Detroit, Jacksonville, Fla., Seattle, Wash., Boston, Mass., Kansas City, Mo., to travel in assigned territory contacting dealers, national accounts, and contractors. No sales involved.

Qualifications: 8 to 10 years commercial refrigeration experience, good personality, neat appearance, high school or better education, must have late model car. Will be given proper training on company products and field requirements. Salary, expenses, car mileage, life insurance and welfare plan furnished.

Reply in own handwriting, giving complete details of education, experience, and employment. No application considered unless accompanied with recent photograph. Give marital status and number of children.

Box A6303
Air Conditioning, Heating & Refrigeration News

Sutton Warranty Situation--

(Concluded from Page 1, Col. 3)

following "best available" answers:

Manufacturer

1. What is the legal liability of the manufacturer in such a position, and are there any special Federal or state laws which cover this matter of warranties on air conditioners and appliances?

The manufacturer certainly has a contractual liability on which a civil lawsuit could be based. However, in the instance of a single customer the amount involved would generally be so trivial that there would be no point in taking legal action. There is no Federal law which covers warranty practices, and few states seem to have statutory regulations which bear upon the subject.

There are some states which are said to require automobile manufacturers to produce and maintain stocks to cover a projected number of years' service requirements should they go out of business, but such laws have not been applied to other products. There seems to be no general laws requiring the setting up of a sufficient financial reserve to guarantee that adequate parts will be supplied for warranties.

Some observers feel that there may be some movement to control the application of warranties through state insurance regulations.

Parts Suppliers

2. What is the legal liability, if any, of the suppliers of parts which the manufacturer uses in producing the completed product?

There is no liability on the part of suppliers of components which form part of the completed product, with respect to the warranty to the ultimate consumer.

Private Brand Sellers

3. What is the legal liability and position of the firm which buys units produced by such a manufacturer, and sells them under the firm's own brand name?

Those firms who purchased the products of the inactive manufacturer, and marketed them as a manufacturer under their own brand name, are subject only to whatever warranties they may have given purchasers of their brand-name product. Such companies as are involved with products produced by Sutton are now taking steps to provide as well as they can the replacement parts which may be required under their warranties.

Dealer

4. What is the legal liability and position of the dealer who sold such equipment, or the service firm that has been designated to handle the in-warranty service on the products of such a manufacturer?

The legal liability, with respect to warranties, of a dealer who sold the products of an inactive manufacturer, or of a servicing firm designated to service the products, is very questionable, and again, the amounts involved would probably preclude any legal action.

The dealer or service firm who gets a call on a product that is still within the warranty period will have to handle it on the basis of his own feelings about his customer relations.

Says an official of Central Air Conditioning Service Co., Chicago, which was one of the designated central service stations for Sutton's products, describes what they are doing in this situation as follows:

"When we get a service call from a customer with a product still in warranty and find that a replacement is necessary, we explain the situation to him and tell him we will have to charge him for any immediate replacement of the part, if we don't have one in stock, and that if we do get a replacement, we will make a refund.

If the customer doesn't want to do it on this basis, we say we will remove the part and see if we can exchange it or repair it, but in most instances the customer wants immediate operation of the unit, and doesn't want to do this.

"If it is a major repair or replacement job, such as a compressor, the customer is likely to say 'the heck with it' and start talking about a possible trade on a new unit."

5. If the manufacturer can no longer supply parts for the repair and maintenance of his products, either in-warranty or out-of-warranty, where might such parts be found?

There are other sources of supplies for parts. Most of the parts of a room cooler which are likely to be involved in a repair or replacement problem are "purchase parts" — standard components supplied by a component manufacturer.

Independent supply wholesalers will often have replacement parts which will work in such units. One supplier of refrigeration compressors for Sutton units is making replacement compressors available on an exchange basis (with a specified cost) through the independent supply wholesalers which handle its line.

Also, the Harry Alter Co., Chicago supply house which does a large mail order business, bought up some parts during a recent auction held at the Sutton plant in Wichita, Kan. These are being offered at closeout prices, according to Irving Alter, an official of the firm.

Acme Offers Catalog

JACKSON, Mich. — Catalog No. 571, a new four-page bulletin, describes Acme Industries' line of model ASC packaged air conditioners for commercial and industrial comfort cooling installations. The firm is located at 600 N. Mechanic St. here.

Texas Tax--

(Concluded from Page 1, Col. 3)

successful efforts of the Texas lawmakers to agree on a tax bill at one regular and two special sessions of the legislature.

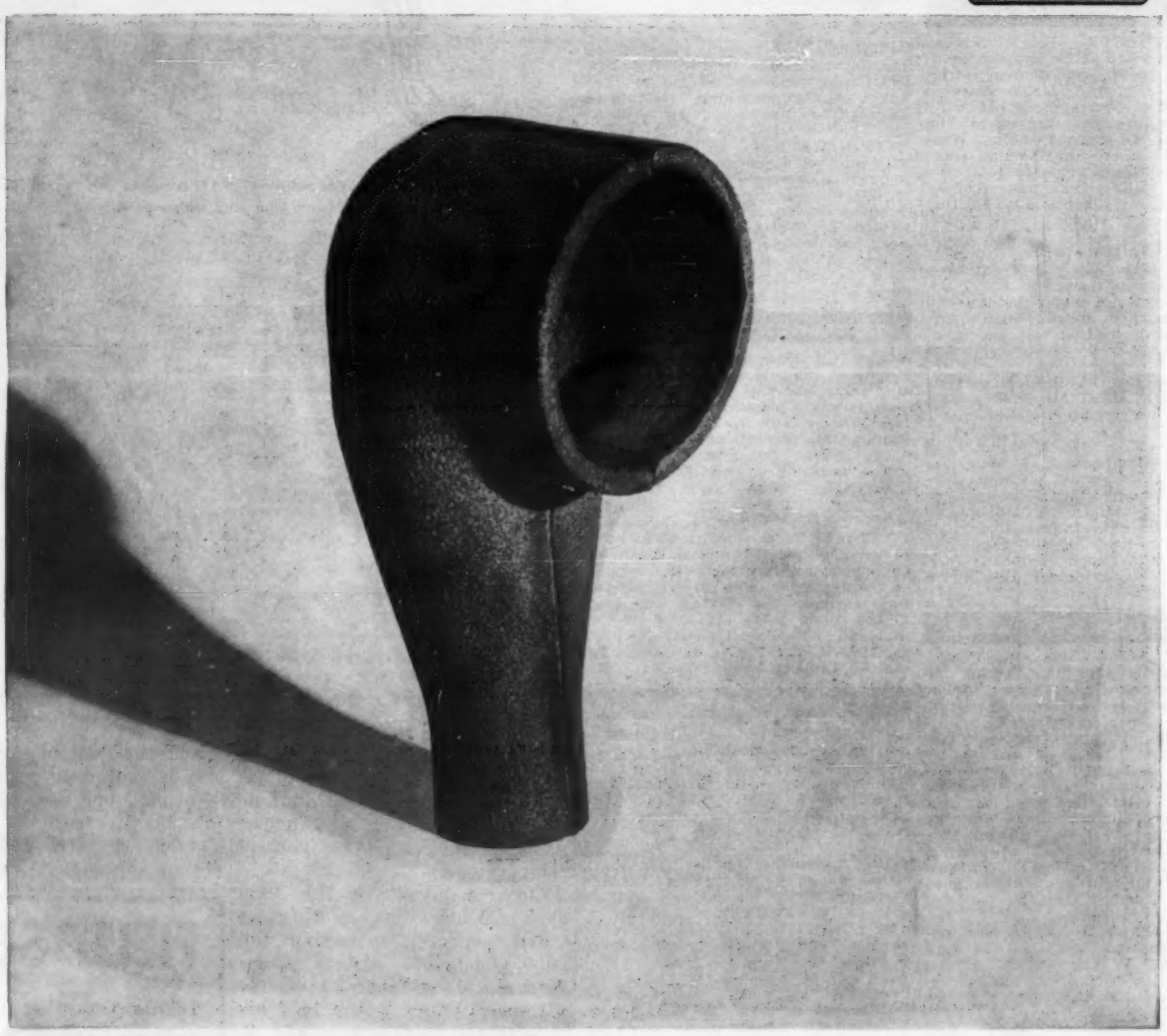
The tax on air conditioners had been in and out of proposals that were previously studied by the legislators. The new tax is expected to yield $3,700,000 a year.

The bill will go into effect Sept. 1.

Also levied in the tax bill were increases in the sales tax on cigarets, liquor and wines, motor vehicles, radio, TV, and hi-fi sets, and new taxes on pleasure boats and motors, hotel occupancy, and natural gas.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

B.F.Goodrich



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In sponge rubber or cellular plastic, B.F.Goodrich industrial cellular materials are excellent for sealing, gasketing, insulating and vibration damping — under even the most trying conditions.

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Cell-Tite tubing is made of tough, flexible rubber with uniform non-connecting cell structure. Especially efficient and convenient for pipe insulation, it will not absorb moisture nor support combustion. Insulation value is excellent. Lengths up to fifty feet make it easy and simple to install.

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